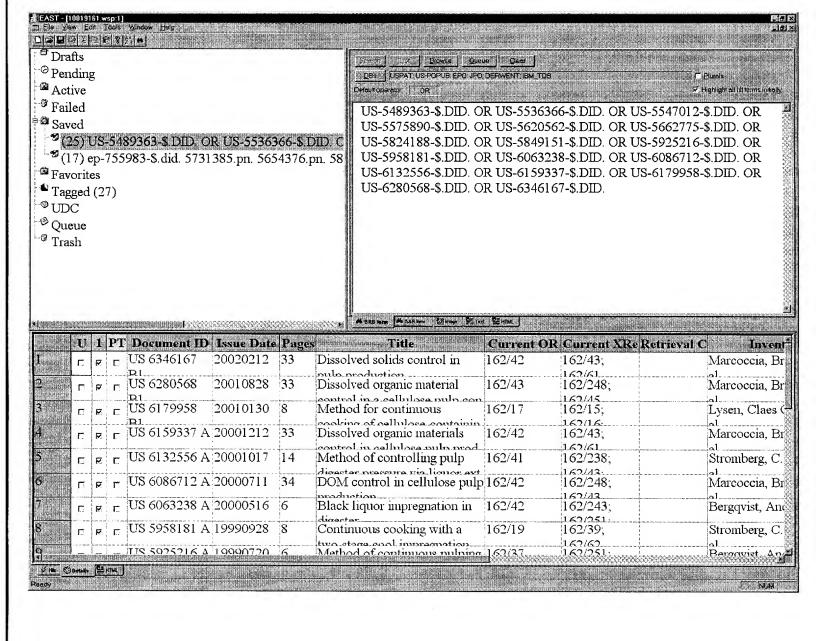
L Number	Hits	Search Text	DB	Time stamp
-	25	US-5489363-\$.DID. OR US-5536366-\$.DID. OR US-5547012-\$.DID.	USPAT;	2003/07/10 16:26
		OR US-5575890-\$.DID. OR US-5620562-\$.DID. OR	US-PGPUB;	
		US-5662775-\$.DID. OR US-5824188-\$.DID. OR US-5849151-\$.DID.	EPO; JPO;	
		OR US-5925216-\$.DID. OR US-5958181-\$.DID. OR	DERWENT;	
		US-6063238-\$.DID. OR US-6086712-\$.DID. OR US-6132556-\$.DID.	IBM_TDB	
		OR US-6159337-\$.DID. OR US-6179958-\$.DID. OR		
		US-6280568-\$.DID. OR US-6346167-\$.DID.		
-	17	ep-755983-\$.did. 5731385.pn. 5654376.pn. 5800963.pn.	USPAT;	2003/07/10 16:32
		6051364.pn.ep-915103-\$.did. 6225395.pn.jp-6306251-\$.did.	US-PGPUB;	
		jp-6220145-\$.did. ep-452696-\$.did. 5134188.pn. 4421892.pn.	EPO; JPO;	!
			DERWENT;	
			IBM TDB	!



Access DB# 11000

## SEARCH REQUEST FORM

### Scientific and Technical Information Center

Requester's Full Name:		Examiner #: 72391 Date: 7.303
	Number 30 5 - 7498	Serial Number: 10   0   9   16   ts Format Preferred (circle): PAPER DISK E-MAI
Man Box and Bidg/Room Location	i. <u>CF3=61 16</u> Resul	is Formal Frederica (circle). FAFER ADISK 12-MAI
If more than one search is subm	itted, please prioritize	e searches in order of need.
Include the elected species or structures, k	eywords, synonyms, acrony that may have a special mea	s specifically as possible the subject matter to be searched.  rms, and registry numbers, and combine with the concept or  ming. Give examples or relevant citations, authors, etc. if  abstract.
Title of Invention:		
Inventors (please provide full names):		
,		
Farliant Driarity Filing Data		
appropriate serial number.		arent, child, divisional, or issued patent numbers) along with the
D	t	theret in chains Pilease See a managerer in
tracess of fractioning	a polytime as	and the state of the owner of the
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STAFF USE ONLY	**************************************	vendors and cost where applicable
Searcher: Ki Fuller	NA Sequence (#)	STN
Scarcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic	Dr.Link

Date Cormbited



# STIC Search Report

# STIC Database Tracking Number: 98338

TO: Jose Fortuna Location: CP3 6 E16

Art Unit : 1731 July 10, 2003

Case Serial Number: 10/019161

From: Kathleen Fuller Location: EIC 1700

CP3/4 3D62

Phone: 308-4290

Kathleen.Fuller@uspto.gov

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AC.			
			·



#### => FILE REG

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STRUCTURE FILE UPDATES: 8 JUL 2003 HIGHEST RN 544651-49-2 8 JUL 2003 HIGHEST RN 544651-49-2 DICTIONARY FILE UPDATES:

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

#### => FILE HCAPLUS

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FILE COVERS 1907 - 10 Jul 2003 VOL 139 ISS 2 FILE LAST UPDATED: 9 Jul 2003 (20030709/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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atype se produce anhythide
=> D OUE
        278363 SEA FILE=REGISTRY ABB=ON PACR/PCT
        159084 SEA FILE=REGISTRY ABB=ON PVIN/PCT
T.5
        168911 SEA FILE=REGISTRY ABB=ON PES/PCT
L6
         64525 SEA FILE=REGISTRY ABB=ON 100-42-5/CRN
L7
         22170 SEA FILE=REGISTRY ABB=ON 108-31-6/CRN
T.8
          5254 SEA FILE=REGISTRY ABB=ON L7 AND L8
L9
L10
           444 SEA FILE=REGISTRY ABB=ON
                                        109-55-7/CRN
                                        L9 AND L10
T.11
             6 SEA FILE=REGISTRY ABB=ON
L12
            79 SEA FILE=REGISTRY ABB=ON L9 AND DIAMINE
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```
L13
         365265 SEA FILE=HCAPLUS ABB=ON L4
L14
         419950 SEA FILE=HCAPLUS ABB=ON L5
L15
         260109 SEA FILE=HCAPLUS ABB=ON L6
              1 SEA FILE=REGISTRY ABB=ON 109-55-7
L16
            973 SEA FILE=HCAPLUS ABB=ON L16/D
L17
              4 SEA FILE=HCAPLUS ABB=ON L11
L18
L19
             56 SEA FILE=HCAPLUS ABB=ON L12
L20
          10516 SEA FILE=HCAPLUS ABB=ON
L21
            151 SEA FILE=HCAPLUS ABB=ON L20(L)?IMID?(L)(PREP OR IMF OR
                SPN)/RL
L23
             32 SEA FILE=HCAPLUS ABB=ON (L18 OR L19)(L)(PREP OR IMF OR
                SPN)/RL
L26
             75 SEA FILE=HCAPLUS ABB=ON L17 AND L20
L28
           2784 SEA FILE=HCAPLUS ABB=ON L20(L)(PREP OR IMF OR SPN)/RL
             21 SEA FILE=HCAPLUS ABB=ON L26 AND L28
L2.9
L30
            383 SEA FILE=HCAPLUS ABB=ON L17(L)(PREP OR IMF OR SPN)/RL
L31
             20 SEA FILE=HCAPLUS ABB=ON L29 AND L30
L32
            193 SEA FILE=HCAPLUS ABB=ON (L13 OR L14 OR L15) AND (L21 OR L23
                OR L31)
             87 SEA FILE=HCAPLUS ABB=ON L32 AND (COMPNS OR COMPOSITION?)
L33
              2 SEA FILE=HCAPLUS ABB=ON L33 AND (AQ OR AQUEOUS? OR H2O OR
L34
                WATER?) (4A) DISPERS?
              1 SEA FILE=HCAPLUS ABB=ON L33 AND CATION?(5A)DISPERS?
L35
             10 SEA FILE=HCAPLUS ABB=ON L33 AND DISPERS?
L36
              O SEA FILE=HCAPLUS ABB=ON L33 AND SIZ?
L37
              O SEA FILE=HCAPLUS ABB=ON L33 AND PAPER?/SC,SX
L38
              10 SEA FILE=HCAPLUS ABB=ON (L34 OR L35 OR L36 OR L37 OR L38)
6 SEA FILE=HCAPLUS ABB=ON L32 AND DISPERSION?(5A)(AQ OR
L39
             10 SEA FILE=HCAPLUS ABB=ON
L40
                AQUEOUS? OR H2O OR WATER? OR CATION?)
L41
             99 SEA FILE=HCAPLUS ABB=ON (L21 OR L23 OR L31)(L)?ACRYL?
L42
              4 SEA FILE=HCAPLUS ABB=ON L41 AND DISPERSION? (5A) (AQ OR
                AQUEOUS? OR H2O OR WATER? OR CATION?)
L43
             14 SEA FILE=HCAPLUS ABB=ON L39 OR L40 OR L42
T.44
            180 SEA FILE=HCAPLUS ABB=ON (L21 OR L23 OR L31) AND ?STYREN?
              6 SEA FILE=HCAPLUS ABB=ON L44 AND DISPERSION? (5A) (AQ OR
L45
                AQUEOUS? OR H2O OR WATER? OR CATION?)
L46
             14 SEA FILE=HCAPLUS ABB=ON L43 OR L45
```

#### => D L46 ALL 1-14 HITSTR

```
L46 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS
```

AN 2003:154469 HCAPLUS

DN 138:171051

TI Aqueous solution, dispersion or suspension of imide polymer having low glass transition temperature for glues

IN Friederichs, Joseph Petronella

PA DSM N.V., Neth.

SO PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F008-30

CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

```
WO 2003016361
                      A1
                            20030227
                                           WO 2002-NL544
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     NL 1018764
                       C1
                             20030218
                                            NL 2001-1018764 20010815
PRAI NL 2001-1018764
                       Α
                             20010815
    The ag. soln., dispersion or suspension of a second
     polymer having glass transition temp. .gtoreq.10.degree. is obtained by
     converting in a first polymer prepd. from (a) 15-50 mol% unsatd. anhydride
     monomer units (e.g., maleic anhydride), (b) 0-85 mol% vinyl arom. monomer
     units (e.g., styrene), (c) 0-85 mol% aliph. vinyl monomer units,
     wherein at least a part of the anhydride monomer units in first polymer
     are reacted with a compd. contg. a terminal amine group (e.g.,
     amino-terminated ethylene oxide-propylene oxide copolymer monomethyl
     ether) to form an imide monomer units.
     maleic anhydride styrene copolymer imidization adhesive; water
     thinned glue imide polymer; amino polyoxyalkylene maleic anhydride
     styrene copolymer reaction
ΙT
     Adhesives
        (aq. soln., dispersion or suspension of imide
        polymer having low glass transition temp. for glues)
IT
     Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (graft polymers; aq. soln., dispersion or
        suspension of imide polymer having low glass transition temp. for
        qlues)
ΙT
        (wallpaper; aq. soln., dispersion or suspension of
        imide polymer having low glass transition temp. for glues of)
     303154-91-8P, Ethylene oxide-maleic anhydride-propylene oxide-
     styrene graft copolymer, methyl ether
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (aq. soln., dispersion or suspension of
        imide polymer having low glass transition temp. for glues)
RE.CNT
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Dsm N V; WO 9945039 A 1999 HCAPLUS
(2) Hoechst Ag; EP 0688796 A 1995 HCAPLUS
(3) Huntsman Petrochemical Corporation; WO 9802490 A 1998 HCAPLUS
(4) Mbt Holding Ag; WO 0035965 A 2000 HCAPLUS
(5) Skw Trostberg Ag; DE 19808314 A 1999 HCAPLUS
(6) W R Grace & Co -Conn; WO 9700898 A 1997 HCAPLUS
     303154-91-8P, Ethylene oxide-maleic anhydride-propylene oxide-
     styrene graft copolymer, methyl ether
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (aq. soln., dispersion or suspension of
        imide polymer having low glass transition temp. for glues)
```

FORTUNA 10/019161 Page 4

RN 303154-91-8 HCAPLUS

CN 2,5-Furandione, polymer with ethenylbenzene, methyloxirane and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1 CMF C H4 O

 ${\tt H3C-OH}$ 

CM 2

CRN 303154-90-7

CMF (C8 H8 . C4 H2 O3 . C3 H6 O . C2 H4 O) x

CCI PMS

CM 3

CRN 108-31-6 CMF C4 H2 O3

0 0

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 75-56-9 CMF C3 H6 O

СНЗ

CM 6

CRN 75-21-8 CMF C2 H4 O

## 0

```
L46 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS
AN
    2003:68818 HCAPLUS
DN
    138:124007
TI
    Anticorrosive aqueous coating compositions with processability
IN
    Yokoi, Hideo; Inomata, Takashi; Hirose, Yuji
PA
    Kansai Paint Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 10 pp.
    CODEN: JKXXAF
DT
    Patent
    Japanese
T,A
    ICM C09D167-06
     ICS C09D005-02; C09D151-08; C08F290-06
CC
     42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                          APPLICATION NO. DATE
     _____
                     ----
                           _____
                                          -----
     JP 2003026992
                      A2
                            20030129
                                          JP 2001-219783
                                                           20010719
PRAI JP 2001-219783
                           20010719
     Title compns. contain (a) acrylic modified polyesters prepd. by
     graft polymn. of ethylenic unsatd. group-terminated polyesters having
     no.-av. mol. wt. of 2,000-50,000 with COOh-contg. unsatd. monomers and (b)
     .beta.-hydroalkylamide crosslinkers Q1mAQ2n [A = (un)satd. or arom.
     polyvalent C2-20 org. group residue; Q1 = HOCR1HCH2NR2CO; Q2 =
     HOCR3HCH2NR4CO; R1, R3 = H or C1-5 alkyl; R2, R4 = H, C1-5 alkyl,
    HOCR5HCH2 with R5 = H or C1-5 alkyl; m = 1-2; n = 0-2 with m + n
     .gtoreq.2]. An aq. compn. contg. Primid XL 552 and a graft
     resin (from Et acrylate, Me methacrylate, styrene, and
     cyclohexanediacid-isophthalic acid-terephthalic acid-ethylene
     glycol-trimethylolpropane copolymer maleic anhydride ester)
     dispersion was coated on a steel plate and baked at 200.degree.
     for 3 min to form a plate showing void-free surface, no crack after
     180.degree. bending and punching with 1-kg steel dart form 50-cm height,
     good anticorrosion (aq. salt soln. spraying for 3 wk), and adhesion
    between the coating film and steel.
    anticorrosion processability aq acrylic polyester coating
    hydroxyalkylamide crosslinker
ΙT
     Polyesters, uses
    RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (acrylic, crosslinked; .beta.-hydroxyalkylamide-curable acrylic
        polyester aq. coatings with anticorrosion and processability)
IT
     Coating materials
        (water-thinned; .beta.-hydroxyalkylamide-curable acrylic polyester aq.
        coatings with anticorrosion and processability)
IT
     490041-24-2P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid XL 552
     copolymer 490041-25-3P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-glycerol-maleic anhydride-ethyl
     acrylate-methacrylic acid-styrene-Primid QM 1260 copolymer
     490041-26-4P, Cyclohexanedicarboxylic acid-isophthalic
```

```
acid-terephthalic acid-ethylene glycol-propylene glycol-trimethylolpropane-
     maleic anhydride-ethyl acrylate-methacrylic acid-styrene-Primid
     QM 1260 copolymer 490041-27-5P, Cyclohexanedicarboxylic
     acid-isophthalic acid-terephthalic acid-ethylene glycol-trimethylolpropane-
     tetrahydrophthalic anhydride-ethyl acrylate-methacrylic
     acid-styrene-Primid QM 1260 copolymer 490041-28-6P,
     Cyclohexanedicarboxylic acid-isophthalic acid-terephthalic
     acid-1,4-butanediol-ethylene glycol-propylene glycol-glycerol-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid QM 1260
     copolymer 490041-29-7P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid QM 1260
     copolymer 490041-30-OP, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-terahydrophthalic anhydride-ethyl acrylate-methacrylic
     acid-styrene-Primid QM 1260 copolymer
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (crosslinked; .beta.-hydroxyalkylamide-curable acrylic polyester aq.
        coatings with anticorrosion and processability)
IT
     490041-24-2P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid XL 552
     copolymer 490041-25-3P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-glycerol-maleic anhydride-ethyl
     acrylate-methacrylic acid-styrene-Primid OM 1260 copolymer
     490041-26-4P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-propylene glycol-trimethylolpropane-
     maleic anhydride-ethyl acrylate-methacrylic acid-styrene-Primid
     QM 1260 copolymer 490041-27-5P, Cyclohexanedicarboxylic
     acid-isophthalic acid-terephthalic acid-ethylene glycol-trimethylolpropane-
     tetrahydrophthalic anhydride-ethyl acrylate-methacrylic
     acid-styrene-Primid QM 1260 copolymer 490041-28-6P,
     Cyclohexanedicarboxylic acid-isophthalic acid-terephthalic
     acid-1,4-butanediol-ethylene glycol-propylene glycol-glycerol-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid QM 1260
     copolymer 490041-29-7P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-ethyl acrylate-methacrylic acid-styrene-Primid OM 1260
     copolymer 490041-30-0P, Cyclohexanedicarboxylic acid-isophthalic
     acid-terephthalic acid-ethylene glycol-trimethylolpropane-maleic
     anhydride-terahydrophthalic anhydride-ethyl acrylate-methacrylic
     acid-styrene-Primid QM 1260 copolymer
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (crosslinked; .beta.-hydroxyalkylamide-curable acrylic polyester ag.
        coatings with anticorrosion and processability)
     490041-24-2 HCAPLUS
RN
CN
     1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid,
     cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene,
     2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate,
     2,5-furandione, 2-methyl-2-propenoic acid and N,N,N',N'-tetrakis(2-
     hydroxyethyl)hexanediamide (9CI) (CA INDEX NAME)
     CM
     CRN 31290-91-2
     CMF C8 H12 O4
```

FORTUNA 10/019161 Page 7

CCI IDS

CM 2

CRN 6334-25-4 CMF C14 H28 N2 O6

CM 3

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \circ \\ || \\ \text{Eto-C-CH-----} \text{CH} \end{array}$$

CM 4

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 108-31-6 CMF C4 H2 O3

CRN 107-21-1 CMF C2 H6 O2

 $_{\text{HO}-\,\text{CH}_2-\,\text{CH}_2-\,\text{OH}}$ 

CM 7

CRN 100-42-5 CMF C8 H8

 $_{\rm H2C} = _{\rm CH-Ph}$ 

CM

CRN 100-21-0 CMF C8 H6 O4

CM

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-} \text{C-} \text{CO}_2 \text{H} \end{array}$$

CM 10

CRN 77-99-6 CMF C6 H14 O3

FORTUNA 10/019161 Page 9

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO-CH}_2-\text{C-Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

RN 490041-25-3 HCAPLUS

1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, ethyl 2-propenoate, 2,5-furandione, 2-methyl-2-propenoic acid, 1,2,3-propanetriol and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CM 2

CRN 31290-91-2 CMF C8 H12 O4 CCI IDS



CM 3

CRN 140-88-5 CMF C5 H8 O2

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 108-31-6 CMF C4 H2 O3

CM 6

CRN 107-21-1 CMF C2 H6 O2

$${\tt HO-CH_2-CH_2-OH}$$

CM 7

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 8

CRN 100-21-0 CMF C8 H6 O4 FORTUNA 10/019161 Page 11

CM 9

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 10

CRN 56-81-5 CMF C3 H8 O3

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO-CH}_2\text{-CH-CH}_2\text{-OH} \end{array}$$

RN 490041-26-4 HCAPLUS

1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, 2,5-furandione, 2-methyl-2-propenoic acid, 1,2-propanediol and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CM 2

CRN 31290-91-2

FORTUNA 10/019161 Page 12

CMF C8 H12 O4 CCI IDS

CM 3

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH------} \text{CH}_2 \end{array}$$

CM 4

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 108-31-6 CMF C4 H2 O3

CM 6

CRN 107-21-1 CMF C2 H6 O2 FORTUNA 10/019161

Page 13

 $_{\text{HO}-\,\text{CH}_2-\,\text{CH}_2-\,\text{OH}}$ 

CM 7

CRN 100-42-5 CMF C8 H8

 $_{\rm H2}c = ch - ph$ 

CM 8

CRN 100-21-0 CMF C8 H6 O4

CM S

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2\text{H} \end{array}$$

CM 10

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO---} \text{CH}_2-\text{C---} \text{Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

CM 11

CRN 57-55-6 CMF C3 H8 O2

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_{3}\text{C}-\text{CH}-\text{CH}_{2}-\text{OH} \end{array}$$

RN 490041-27-5 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, 2-methyl-2-propenoic acid, 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CM 2

CRN 31290-91-2 CMF C8 H12 O4 CCI IDS



CM 3

CRN 140-88-5 CMF C5 H8 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{EtO-C-CH} \end{array}$$

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 107-21-1 CMF C2 H6 O2

CM 6

CRN 100-42-5 CMF C8 H8

$$H_2C = CH - Ph$$

CM 7

CRN 100-21-0 CMF C8 H6 O4

CM 8

CRN 85-43-8 CMF C8 H8 O3

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 10

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2\text{--OH} \\ \mid \\ \text{HO-CH}_2\text{--C-Et} \\ \mid \\ \text{CH}_2\text{--OH} \end{array}$$

RN 490041-28-6 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, ethyl 2-propenoate, 2,5-furandione, 2-methyl-2-propenoic acid, 1,2-propanediol, 1,2,3-propanetriol and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CRN 31290-91-2 CMF C8 H12 O4 CCI IDS



CM 3

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 121-91-5 CMF C8 H6 O4

CM5

CRN 110-63-4 CMF C4 H10 O2

 $HO-(CH_2)_4-OH$ 

CM6

CRN 108-31-6

FORTUNA 10/019161

Page 18

CMF C4 H2 O3

CM 7

CRN 107-21-1 CMF C2 H6 O2

но-сн2-сн2-он

CM 8

CRN 100-42-5 CMF C8 H8

 $_{\text{H2C}} = _{\text{CH}} - _{\text{Ph}}$ 

CM 9

CRN 100-21-0 CMF C8 H6 O4

CM 10

CRN 79-41-4 CMF C4 H6 O2

CM 11

CRN 57-55-6 CMF C3 H8 O2

CRN 56-81-5 CMF C3 H8 O3

$$\begin{array}{c} \text{OH} \\ | \\ \text{HO-CH}_2\text{--CH-CH}_2\text{--OH} \end{array}$$

RN 490041-29-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, 2,5-furandione, 2-methyl-2-propenoic acid and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CM 2

CRN 31290-91-2 CMF C8 H12 O4 CCI IDS

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 108-31-6 CMF C4 H2 O3

CM 6

CRN 107-21-1 CMF C2 H6 O2

 $_{\text{HO}-\,\text{CH}_2-\,\text{CH}_2-\,\text{OH}}$ 

CRN 100-42-5 CMF C8 H8

 $_{\rm H2}c = ch - ph$ 

CM 8

CRN 100-21-0 CMF C8 H6 O4

CM 9

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 10

CRN 77-99-6 CMF C6 H14 O3

$$\begin{array}{c} \text{CH}_2-\text{OH} \\ | \\ \text{HO--CH}_2-\text{C--Et} \\ | \\ \text{CH}_2-\text{OH} \end{array}$$

RN 490041-30-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, cyclohexanedicarboxylic acid, 1,2-ethanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, 2,5-furandione, 2-methyl-2-propenoic acid, 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione and N,N,N',N'-tetrakis(2-hydroxypropyl)hexanediamide (9CI) (CA INDEX NAME)

CM 1

CRN 57843-53-5 CMF C18 H36 N2 O6

CM 2

CRN 31290-91-2 CMF C8 H12 O4 CCI IDS

CM 3

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 121-91-5 CMF C8 H6 O4

CRN 108-31-6 CMF C4 H2 O3

CM 6

CRN 107-21-1 CMF C2 H6 O2

 $_{\text{HO}-\,\text{CH}_2-\,\text{CH}_2-\,\text{OH}}$ 

7 CM

CRN 100-42-5 CMF C8 H8

 ${\tt H_2C} = {\tt CH-Ph}$ 

CM 8

CRN 100-21-0 CMF C8 H6 O4

CM 9

CRN 85-43-8 CMF C8 H8 O3

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 11

CRN 77-99-6 CMF C6 H14 O3

$$_{
m HO-CH_2-C-Et}^{
m CH_2-OH}$$

L46 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2003 ACS

ΑN 2000:911309 HCAPLUS

DN 134:58118

TΙ Hydrophobic cationic dispersions stabilized by low molecular weight maleimide copolymers for paper sizing

IN Betremieux, Isabelle; Dumousseaux, Christophe; Verge, Christophe; Feret, Bruno; Flat, Jean-Jacques appiecente

PA Atofina, Fr.

PCT Int. Appl., 22 pp. SO CODEN: PIXXD2

DT Patent

LA French

IC ICM C08F002-28

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ -----A1 20001228 WO 2000078818 WO 2000-FR1692 20000620 PΙ W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,

```
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     FR 2795076
                            20001222
                                          FR 1999-7910
                       A1
                                           EP 2000-951612
     EP 1194454
                            20020410
                                                            20000620
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2003502486
                       T2
                            20030121
                                           JP 2001-505575
                                                             20000620
PRAI FR 1999-7910
                       Α
                            19990621
     WO 2000-FR1692
                       W
                            20000620
AΒ
     The invention concerns a method for obtaining an ag.
     dispersion of hydrophobic polymers such as Bu acrylate-
     styrene copolymer dispersed in the form of particles with mean
     diam. less than 100 nm stabilized solely with a cationic macromol.
     surfactant based on low mol. wt. styrene/maleic anhydride imide
     copolymer. The invention also concerns the use of said dispersion for
     treating and sizing paper.
ST
     cationic dispersion sizing agent paper; maleimide salt
     polymer dispersant sizing agent paper; butyl acrylate
     styrene copolymer dispersion sizing agent paper
IT
     Dispersing agents
        (cationic; hydrophobic cationic dispersions
        stabilized by low mol. wt. maleimide copolymers for paper sizing)
IT
     Paper
     Sizes (agents)
        (hydrophobic cationic dispersions stabilized by low
        mol. wt. maleimide copolymers for paper sizing)
IT
     109-55-7DP, N,N-Dimethylpropylenediamine, imides with maleic
     anhydride-styrene copolymer, acetate salts 9011-13-6DP
     , Maleic anhydride-styrene copolymer, imides with
     dimethylpropylenediamine, acetate salts
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (hydrophobic cationic dispersions stabilized by low
        mol. wt. maleimide copolymers for paper sizing)
     25767-47-9P, Butyl acrylate-styrene copolymer
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (sizing agent; hydrophobic cationic dispersions
        stabilized by low mol. wt. maleimide copolymers for paper sizing)
RE.CNT
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Elf Atochem; EP 0810323 A 1997 HCAPLUS
(2) Verdol, J; US 3444151 A 1969 HCAPLUS
IT
     109-55-7DP, N,N-Dimethylpropylenediamine, imides with maleic
     anhydride-styrene copolymer, acetate salts 9011-13-6DP
     , Maleic anhydride-styrene copolymer, imides with
     dimethylpropylenediamine, acetate salts
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (hydrophobic cationic dispersions stabilized by low
        mol. wt. maleimide copolymers for paper sizing)
     109-55-7 HCAPLUS
RN
CN
     1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)
```

 $H_2N - (CH_2)_3 - NMe_2$ 9011-13-6 HCAPLUS RN2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME) CN Mark distribution CM CRN 108-31-6 C4 H2 O3 CMF 2 CM CRN 100-42-5 C8 H8 CMF .215  $H_2C = CH - Ph$ IT 25767-47-9P, Butyl acrylate-styrene copolymer RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (sizing agent; hydrophobic cationic dispersions stabilized by low mol. wt. maleimide copolymers for paper sizing) RN 25767-47-9 HCAPLUS CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME) CM1 CRN 141-32-2 in the design of the CMF C7 H12 O2

0 n-BuO-C-CH=CH2

> CM2

CRN 100-42-5 C8 H8 CMF

H2C CH-Ph

```
L46 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS
    2000:699207 HCAPLUS
AN
DN
     133:282232
     Branched polyolefin polymers as additives in fuel and lubricating oil
ТΙ
    compositions
     Janssen, Koen Jan Gerarda; Bostoen, Claude Leo
IN
PΑ
    DSM Copolymer, Inc., Neth.
     U.S., 30 pp., Cont.-in-part of U.S. 6,084,030.
SO
     CODEN: USXXAM
DT
     Patent
     English
LA
     ICM C08G077-12
TC
NCL
    525106000
     35-4 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 51
FAN.CNT 3
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                            DATE
     ______
                      ----
                            _____
                      Α
     US 6127481
                                           US 1996-683518
                            20001003
                                                            19960712
     US 6084030
                      Α
                            20000704
                                           US 1995-511402
                                                            19950804
                                           CA 1996-2228421 19960708
     CA 2228421
                      AA
                            19970220
     CN 1198757
                      A
                            19981111
                                           CN 1996-197344
                                                            19960807
     BR 9703906
                            20000912
                                           BR 1997-3906
                                                            19970609
                      Α
     CA 2207891
                                           CA 1997-2207891
                                                            19970617
                      AA
                            19980112
     EP 818525
                                           EP 1997-304774
                                                            19970701
                      Α2
                            19980114
     EP 818525
                      АЗ
                            19980204
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
                            19980122
     AU 9728608
                                           AU 1997-28608
                                                            19970711
                       Α1
     CN 1172846
                                           CN 1997-114629
                                                            19970711
                      A
                            19980211
PRAI US 1995-511402
                      A2
                            19950804
     US 1996-683518
                     Α
                            19960712
AB
     A branched polyolefin additive, for use in fuel and/or lubricating oil,
     has a comb, star, nanogel, and structural combinations in which many
     polyolefin arms (e.g. ethylene-propylene copolymers) are attached to a
     backbone having repeating units contg. aliph. groups, arom. groups,
     heteroatom-contg. groups and combinations (e.g. polyhydrosilanes).
     branched polyolefin additive fuel oil; lubricating oil additive branched
ST
     polyolefin; dispersant detergent additive fuel; viscosity
     improver lubricating oil
IT
     Fuel oil additives
     Gasoline additives
        (branched polyolefin polymers as additives in fuel and lubricating oil
        compns.)
IT
     Lubricating oil additives
        (dispersants; branched polyolefin polymers as additives in
        fuel and lubricating oil compns.)
IT
     Polyvinyl acetals
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (formals, reaction products with polyolefins; branched polyolefin
        polymers as additives in fuel and lubricating oil compns.)
IT
     Gels
        (nano-; branched polyolefin polymers as additives in fuel and
        lubricating oil compns.)
IT
     Polymer blends
```

```
RL: MOA (Modifier or additive use); USES (Uses)
        (of branched polyolefins; branched polyolefin polymers as additives in
        fuel and lubricating oil compns.)
IT
     Polysiloxanes, preparation
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (polyolefin-, graft, branched, multi-armed; branched polyolefin
       polymers as additives in fuel and lubricating oil compns.)
IT
     Dendritic polymers
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (reaction products with polyolefins; branched polyolefin polymers as
        additives in fuel and lubricating oil compns.)
IT
     Polyolefins
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (siloxane-, graft, branched, multi-armed; branched polyolefin polymers
        as additives in fuel and lubricating oil compns.)
     Lubricating oil additives
IT
        (viscosity improvers; branched polyolefin polymers as additives in fuel
        and lubricating oil compns.)
IT
     101-54-2DP, N-Phenyl-p-phenylenediamine, reaction products with maleic
     anhydride-grafted branched polyolefins 108-31-6DP, 2,5-Furandione,
     reaction products with polyolefins and backbone polymers, preparation
     109-55-7DP, reaction products with maleic anhydride-grafted
     branched polyolefins
                           112-57-2DP, reaction products with maleic
     anhydride-grafted branched polyolefins
                                              280-64-8DP, 9-
     Borabicyclo[3.3.1] nonane, reaction products with polyolefins
                                                                    537-65-5DP,
     4,4'-Diaminodiphenylamine, reaction products with dendrimers and
                  2038-03-1DP, 4-(2-Aminoethyl)morpholine, reaction products
     polyolefins
     with maleic anhydride-grafted branched polyolefins 2094-99-7DP, Reaction
     products with polyolefins, Me methacrylate and styrene
                                                              7338-27-4DP,
     Methyl itaconate, reaction products with tris(aminoethyl)benzene and
     hydroxy-terminated polyolefins
                                    9002-88-4DP, Polyethylene, reaction
     products with polymeric backbones
                                         9003-07-0DP, Polypropylene, reaction
     products with polymeric backbones
                                         9003-11-6DP, diamine derivs., reaction
     products with maleic anhydride-grafted branched polyolefins
                                                                  9004-73-3DP,
     Polymethylhydrosiloxane, reaction products with polyolefins
                                                                   9010-79-1DP,
     Ethylene-propylene copolymer, reaction products with polymeric backbones
     9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products
     with amine-terminated polyolefins 10025-78-2DP, Trichlorosilane,
     reaction products with polyolefins 25189-84-8DP, Poly(acryloyl
     chloride), reaction products with polyolefins
                                                    26587-28-0P,
                                            26603-40-7DP, reaction products
     Ethylene-propylene-1-octene copolymer
     with hydroxy-terminated polyolefins 26937-45-1DP,
     Poly(methacryloyl chloride), reaction products with polyolefins
     65605-36-9DP, reaction products with polyolefins
                                                      118550-50-8DP, Tolonate
     HDT, reaction products with polyolefins 181116-31-4P
                                                             202073-27-6P
     202073-28-7P
                   202073-29-8P
                                  202073-30-1P
                                                  202073-31-2P
     202073-32-3P 202073-33-4P 202073-34-5P
     202073-35-6DP, 1,3,5-Benzenetriethanamine, reaction products with Me
                                211293-55-9P
     itaconate and polyolefins
     RL: IMF (Industrial manufacture); MOA (Modifier or additive
     use); PREP (Preparation); USES (Uses)
        (branched polyolefin polymers as additives in fuel and lubricating oil
        compns.)
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
RE
```

(1) Anon; JP 217505 1983 (2) Cozewith; US 5030659 1991 HCAPLUS (3) Kennedy; US 5395885 1995 HCAPLUS (4) Zhou; US 5276110 1994 HCAPLUS 109-55-7DP, reaction products with maleic anhydride-grafted branched polyolefins 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with amine-terminated polyolefins 25189-84-8DP, Poly(acryloyl chloride), reaction products with polyolefins 26937-45-1DP, Poly(methacryloyl chloride), reaction products with polyolefins 202073-28-7P 202073-33-4P 202073-34-5P RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (branched polyolefin polymers as additives in fuel and lubricating oil compns.) RN 109-55-7 HCAPLUS 1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME) CN  $H_2N - (CH_2)_3 - NMe_2$ 9011-13-6 HCAPLUS RN CN 2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME) CM CRN 108-31-6 CMF C4 H2 O3 CM 2 CRN 100-42-5 CMF C8 H8  $H_2C = CH - Ph$ RN25189-84-8 HCAPLUS 2-Propenoyl chloride, homopolymer (9CI) (CA INDEX NAME) CN

CM

1

CRN 814-68-6 CMF C3 H3 Cl O

RN 26937-45-1 HCAPLUS CN 2-Propencyl chloride, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 920-46-7 CMF C4 H5 Cl O

RN 202073-28-7 HCAPLUS
CN Silanediol, methyl-, polymer with ethene, 1-propene and
2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane (9CI) (CA
INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

CM 2

CRN 2554-06-5 CMF C12 H24 O4 Si4

$$Me$$
 $H_2C = CH$ 
 $O = Si$ 
 $Me$ 
 $O = Si$ 
 $O = CH$ 
 $O = CH$ 

CM 3

CRN 115-07-1 CMF C3 H6

 $_{\rm H3C-CH}=_{\rm CH2}$ 

CM 4

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

RN 202073-33-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with
9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate,
2-methyl-2-propenoyl chloride, methylsilanediol and 1-propene (9CI) (CA
INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

OH | HO-SiH-CH3

CM 2

CRN 920-46-7 CMF C4 H5 Cl O

CM 3

CRN 280-64-8 CMF C8 H15 B



CRN 115-07-1 CMF C3 H6

 $_{\mathrm{H3C-CH}}=_{\mathrm{CH2}}$ 

CM 5

CRN 97-90-5 CMF C10 H14 O4

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\text{H}_2\text{C}} \circ \\ \parallel & \parallel \\ \text{Me-} \text{C--C-OMe} \end{array}$$

CM 7

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

RN 202073-34-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate, methylsilanediol and 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

CM 2

CRN 280-64-8 CMF C8 H15 B



CM 3

CRN 115-07-1 CMF C3 H6

$$_{\mathrm{H_3C-CH}}=_{\mathrm{CH_2}}$$

CM 4

CRN 97-90-5 CMF C10 H14 O4

CM 5

CRN 80-62-6 CMF C5 H8 O2

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

```
ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS
AN
    1999:576956 HCAPLUS
DN
    131:186448
    Aqueous dispersion of an imidized maleic anhydride-
TI
    styrene polymer for paper sizes
    Van Den Berg, Hendrik Jan; Maassen, Mathijs Hubert Gertrudes;
ΙN
     Steenbakkers, Laurentius Wilhelmus
    Dsm N.V., Neth.
PΑ
    PCT Int. Appl., 19 pp.
SO
     CODEN: PIXXD2
DT
    Patent
    English
LΑ
    ICM C08F008-32
ICS D21H021-16
IC
     43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
CC
     Section cross-reference(s): 35
FAN.CNT 1
     PATENT NO.
                 KIND DATE
                                        APPLICATION NO. DATE
                    ____
                                         _____
     _____
     WO 9945039 A1 19990910 WO 1999-NL112 19990303
PΙ
        W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID,
            IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO,
            NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
            ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
            CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     C2
                           19990907
                                        NL 1998-1008469 19980304
     NL 1008469
     AU 9928606
                      A1
                           19990920
                                         AU 1999-28606
                                         BR 1999-8462
     BR 9908462
                      Α
                           20001114
                                                          19990303
     EP 1060197
                           20001220
                                         EP 1999-909400
                                                          19990303
                      A1
        R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, FI
                                        JP 2000-534580
                           20020219
     JP 2002505351 T2
                                                          19990303
                                         US 2000-654502
                                                          20000901
     US 6407197
                      B1
                           20020618
PRAI NL 1998-1008469
                      Α
                           19980304
     US 1998-101556P
                      Ρ
                           19980922
     WO 1999-NL112
                      W
                           19990303
     The title polymer was obtained by imidization of polymer of 7-50 mol%
AΒ
     maleic anhydride monomer units and vinyl arom. monomer units, carried out
     in that .ltoreg.75% of the maleic anhydride monomer units was imidized.
     Thus, 26:74 maleic anhydride-styrene copolymer having intrinsic
     viscosity (2 g/dL, THF, 25.degree.) 0.35 dL/g was treated with 25% NH3
     soln. to imidization degree 59% with diln. with H2O to 20% solids. Paper
     sized with the above dispersion, addnl. contg. 10% starch, was formed into
     a sheet having low water absorption (DIN EN 205353) Cobb60 25 and
     acceptable printing (wicking) properties; vs. 41 and unacceptable printing
```

for a dispersion of imidized (89%) polymer.

```
paper sizing dispersion imidized polymer; maleic anhydride styrene
ST
     copolymer imidization; water absorption sized paper; printability sized
    paper
IT
     Sizes (agents)
        (aq. dispersion of imidized maleic anhydride-
        styrene polymer for paper sizes)
IT
     Paper
        (water absorption and printability; aq.
        dispersion of imidized maleic anhydride-styrene
        polymer for paper sizes)
     7664-41-7DP, Ammonia, reaction products with maleic anhydride
IT
     styrene copolymer, uses 9011-13-6DP, Maleic anhydride
     styrene copolymer, imidized with ammonia
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (aq. dispersion of imidized maleic
        anhydride-styrene polymer for paper sizes)
              THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 8
RE
(1) Bayer AG; DE 3430802 A 1986 HCAPLUS
(2) Ciba-Geigy AG; FR 2369380 A 1978 HCAPLUS
(3) DSM NV; WO 9317050 A 1993 HCAPLUS
(4) DSM NV; EP 0728767 A 1996 HCAPLUS
(5) Denki Kagaku Kogyo KK; JP 60243102 A 1985 HCAPLUS
(6) Institut Fur Technologie Der Polymere; DE 4112535 A 1992 HCAPLUS
(7) Leuna-Werke GMBH; DE 4342157 A 1995 HCAPLUS
(8) Veb Leuna-Werke Walter Ulbricht; DE 3819968 A 1989 HCAPLUS
     9011-13-6DP, Maleic anhydride styrene copolymer,
IT
     imidized with ammonia
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (ag. dispersion of imidized maleic
        anhydride-styrene polymer for paper sizes)
RN
     9011-13-6 HCAPLUS
     2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
CN
     CM
          1
     CRN
         108-31-6
         C4 H2 O3
     CMF
```

 $H_2C = CH - Ph$ 

CM

CRN

CMF

2

100-42-5

C8 H8

```
L46 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2003 ACS
    1999:458927 HCAPLUS
AN
    131:88320
DN
    Stable aqueous dispersions based on water
ΤI
    -soluble polymers containing a cationic polymeric dispersant having
    hydrophobic groups
    Tembou, Nzudie Denis; Collette, Christian
IN
     Elf Atochem S. A., Fr.
PA
    Fr. Demande, 13 pp.
    CODEN: FRXXBL
DT
    Patent
LΑ
    French
    ICM C08F212-08
TC
    ICS C08F220-56; C08F002-22
    C08F212-08, C08F220-34; C08F220-56, C08F220-34, C08F220-18
ICI
     35-4 (Chemistry of Synthetic High Polymers)
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
     ______
                    A1 19990507
PΙ
    FR 2770526
                                         FR 1997-13859 19971104
     FR 2770526
                     B1 20000114
     EP 915103
                     A1 19990512
                                         EP 1998-402667 19981027
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
     US 6225395
                           20010501
                                         US 1998-182651
                                                          19981030
                     В1
     AU 9890528
                                         AU 1998-90528
                      A1
                           19990603
                                                          19981102
     AU 719694
                      В2
                           20000518
     NO 9805127
                           19990505
                                         NO 1998-5127
                                                          19981103
                      A
                                         CN 1998-125824
     CN 1224727
                      Α
                           19990804
                                                          19981104
     JP 11217410
                    A2
A
                           19990810
                                         JP 1998-313810
                                                          19981104
                           19971104
PRAI FR 1997-13859
     Low-viscosity, highly concd., stable aq. dispersion of
     water-sol. polymers are manufd. in the presence of polymeric
     dispersants contg. repeating units of .gtoreq.1 water-sol. monomer 15-99,
     repeating units of .gtoreq.1 water-insol. monomer 1-85, and repeating
     units of .gtoreq.1 amphiphilic monomer. A typical dispersant was manufd.
     by radical polymn. of 140 parts styrene with 175 parts 80% aq.
     soln. of acryloyloxyethyltrimethylammonium chloride in an
     EtOH-MEK mixt.
     ag dispersion water soluble polymer manuf
     polymeric dispersant; styrene copolymer dispersant water soluble
     polymer; acryloyloxyethyltrimethylammonium copolymer dispersant
     water soluble polymer
IT
     Polymerization
        (dispersion; stable aq. dispersions based
        on water-sol, polymers contq. a cationic polymeric dispersant
        having hydrophobic groups)
     Quaternary ammonium compounds, preparation
IT
     RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP
     (Preparation); USES (Uses)
        (polymers; stable aq. dispersions based on
        water-sol. polymers contg. a cationic polymeric dispersant
        having hydrophobic groups)
IT
     Dispersing agents
        (stable aq. dispersions based on water
        -sol. polymers contg. a cationic polymeric dispersant having
        hydrophobic groups)
IT
     121436-73-5P, Acryloyloxyethyltrimethylammonium
```

IT

IT

IT

RN

CN

chloride-styrene copolymer RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses) (dispersant; stable aq. dispersions based on water-sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups) 211106-71-7P RL: IMF (Industrial manufacture); PREP (Preparation) (stable aq. dispersions based on water -sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups) 109-55-7DP, imides with maleic anhydride-styrene copolymer, salts with acetic acid 9011-13-6DP, Maleic anhydridestyrene copolymer, imides with dimethylaminopropylamine, salts with acetic acid RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses) (stable aq. dispersions based on water -sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups) 121436-73-5P, Acryloyloxyethyltrimethylammonium chloride-styrene copolymer RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses) (dispersant; stable aq. dispersions based on water-sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups) 121436-73-5 HCAPLUS Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride, polymer with ethenylbenzene (9CI) (CA INDEX NAME) CM CRN 44992-01-0 CMF C8 H16 N O2 . C1

 $Me_3+N-CH_2-CH_2-O-C-CH==CH_2$ 

Cl-

2 CM

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

IT 211106-71-7P

RL: IMF (Industrial manufacture); PREP (Preparation)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

(stable aq. dispersions based on water

-sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups)

RN 211106-71-7 HCAPLUS

CN Benzenemethanaminium, N,N-dimethyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, chloride, polymer with butyl 2-propenoate and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 46830-22-2 CMF C14 H20 N O2 . C1

● c1-

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 79-06-1 CMF C3 H5 N O

1T 109-55-7DP, imides with maleic anhydride-styrene
copolymer, salts with acetic acid 9011-13-6DP, Maleic anhydridestyrene copolymer, imides with dimethylaminopropylamine,
salts with acetic acid

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)

(stable aq. dispersions based on water

-sol. polymers contg. a cationic polymeric dispersant having hydrophobic groups)

FORTUNA 10/019161 Page 39

RN 109-55-7 HCAPLUS

CN 1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_3-NMe_2$ 

RN 9011-13-6 HCAPLUS

CN 2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 108-31-6 CMF C4 H2 O3

CM 2

CRN 100-42-5 CMF C8 H8

 $\text{H}_2\text{C} = \text{CH} - \text{Ph}$ 

L46 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:192138 HCAPLUS

DN 128:245265

TI Antireflective film-forming compositions particularly useful for underlaying antireflective coatings with microlithographic photoresists for the absorption of near or deep UV radiation

IN Knors, Christopher John; Macy, Elwood Herbert; Moreau, Wayne Martin

PA International Business Machines Corp., USA

SO U.S., 8 pp. CODEN: USXXAM

DT Patent

LA English

IC ICM C08F008-32 ICS C08F022-04

NCL 525327600

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41, 74

FAN.CNT 2

FAN.C	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI 1	US 5731385	А	19980324	US 1993-168885	19931216
1	US 5654376	A	19970805	US 1995-466566	19950606
1	US 58009 <b>63</b>	Α	19980901	US 1995-466561	19950606
1	US 6051364	A	20000418	US 1998-57657	19980409
PRAI 1	US 1993-168885		19931216		
1	US 1995-466561		19950606		

US 1995-466566 19950606

AB The title compns. comprise an imide reaction product of (a) at least one aminoarom. chromophore reactant having an optical absorbance coeff. of at least about 10/.mu.m, with (b) a polymer reactant, wherein the polymer reactant comprises an anhydride group, wherein the imide reaction product is immiscible with a photoresist compn. comprising a solvent selected from alkyl Cellosolves and acetate esters thereof, propylene glycol alkyl ethers and acetate esters thereof, monooxymonocarboxylic acid esters and ethers thereof, diglyme, and Et lactate, and wherein the imide reaction product is essentially insol. in aq. alk. photoresist developer. A maleic anhydride-vinyl Me ether copolymer imidized by C.I. Disperse Yellow 9 gave a 50 nm-thick film from a cyclohexanone soln., with optical absorption coeff. about

ST antireflective coating polymeric dye photoresist

IT Antireflective films

Photoresists

(antireflective film-forming compns. particularly useful for underlaying antireflective coatings with microlithog. photoresists for the absorption of near or deep UV radiation)

IT Imides

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (antireflective film-forming compns. particularly useful for underlaying antireflective coatings with microlithog. photoresists for the absorption of near or deep UV radiation)

119-26-6DP, 2,4-Dinitrophenylhydrazine, polymeric dyes IT 539-17-3DP, 613-13-8DP, 2-Aminoanthracene, maleic anhydride polymeric dyes copolymers imidized by 6373-73-5DP, C.I. Disperse Yellow 9, maleic anhydride copolymers imidized by 9011-13-6DP, Maleic anhydride-styrene copolymer, imidized by (dinitroanilino) aniline 9011-16-9DP, Maleic anhydride-methyl vinyl ether copolymer, imidized by (dinitroanilino) aniline 26471-56-7DP, Dinitroaniline, 51649-83-3DP, polymeric dyes 76788-23-3DP, polymeric polymeric dyes dyes 204850-10-2DP, polymeric dyes 204850-12-4DP, polymeric dyes RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(antireflective film-forming compns. particularly useful for underlaying antireflective coatings with microlithog. photoresists for the absorption of near or deep UV radiation)

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Anon; CS 200359 1979 HCAPLUS
- (2) Anon; JP 63-122666 A2 1988 HCAPLUS
- (3) Anon; GB 2267095 1993 HCAPLUS
- (4) Anon; DE 4312243 A1 1993 HCAPLUS
- (5) Arnold; US 4910122 1990 HCAPLUS
- (6) Bolsen, M; Solid State Tech 1986, P83 HCAPLUS
- (7) Brunner, T; Spie 1991, V1466, P297 HCAPLUS
- (8) Dichiara; US 5401614 1995 HCAPLUS
- (9) Dichiara; US 5482817 1996 HCAPLUS
- (10) Durham; US 4948697 1990 HCAPLUS
- (11) Fujikura; US 5328803 1994 HCAPLUS
- (12) Hertog; US 4828960 1989 HCAPLUS
- (13) Holmes; US 5362812 1994 HCAPLUS
- (14) Horn, M; Solid State Tech 1991, V58
- (15) Johnson; US 3157595 1964 HCAPLUS

- (16) Jones; US 4728724 1988 HCAPLUS (17) Kalopissis; US 3763086 1973 HCAPLUS (18) Knors; US 5294680 1994 HCAPLUS (19) Kohara; US 4882260 1989 HCAPLUS (20) Kotani; US 4575480 1986 HCAPLUS (21) Lazarus; US 4943511 1990 HCAPLUS (22) Linehan; US 5244994 1993 HCAPLUS (23) Macleay; US 4981915 1991 HCAPLUS (24) Moreau, W; Semiconductor Lithography, Principles, Practices, and Materials, Chapters 2 and 10 1988 (25) O'Toole; US 4370405 1983 HCAPLUS (26) Pampalone; US 4609614 1986 HCAPLUS (27) Pampalone, T; J Electrochem Soc 1989, V136, P1181 HCAPLUS (28) Petisce; US 5074643 1991 HCAPLUS (29) Rahman; US 5516886 1996 HCAPLUS (30) Satomura; US 3945831 1976 HCAPLUS (31) Sayigh; US 3854946 1974 HCAPLUS (32) Smith; US 2811509 1957 HCAPLUS (33) Tanaka, T; J Electrochem Soc 1990, V137, P3900 HCAPLUS (34) Unruh; US 2751373 1956 HCAPLUS (35) Widmann, D; IEEE Trans Electron Devices 1975, VEd-22, P467 (36) Yajima; US 5043243 1991 HCAPLUS IT 9011-13-6DP, Maleic anhydride-styrene copolymer, imidized by (dinitroanilino) aniline 9011-16-9DP, Maleic anhydride-methyl vinyl ether copolymer, imidized by (dinitroanilino) aniline RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (antireflective film-forming compns. particularly useful for underlaying antireflective coatings with microlithog. photoresists for the absorption of near or deep UV radiation) 9011-13-6 HCAPLUS RN CN 2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME) CM1 108-31-6 CMF C4 H2 O3
- CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 9011-16-9 HCAPLUS
CN 2,5-Furandione, polymer with methoxyethene (9CI) (CA INDEX NAME)

CRN 108-31-6 CMF C4 H2 O3

CM 2

107-25-5 CRN CMF C3 H6 O

H2C== CH- O- CH3

L46 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2003 ACS

1998:119117 HCAPLUS ΑN

DN 128:130179

TIBranched polyolefin polymers as additives in fuel and lubricating oil compositions

IN Janssen, Koen J. G.; Bostoen, Claude L.

PADSM Copolymer, Inc., USA

Eur. Pat. Appl., 46 pp. SO

CODEN: EPXXDW

DTPatent

LAEnglish

IC ICM C10L001-16

ICS C10L001-18; C10L001-22; C10L001-28

CC 51-8 (Fossil Fuels, Derivatives, and Related Products) Section cross-reference(s): 35

FAN.CNT 3

PATENT NO. KIND DATE APPLICATION NO. DATE **---**\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ PΙ EP 818525 A2 19980114 EP 1997-304774 19970701 19980204 А3

> R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

> > US 1996-683518

19960712

US 6127481 Α 20001003

19960712 Α

PRAI US 1996-683518 US 1995-511402 A2 19950804

This invention relates to a branched polyolefin additive for use in fuel and/or lubricating oil in the form of a comb, star, nanogel and structural combinations thereof, in which a plurality of polyolefin arms are attached to a backbone having repeating units contg. aliph. groups, arom. groups, heteroatom-contg. groups and combinations thereof, to provide a branched polymeric additive in which the properties of the additive can be conveniently tailored to a single or multifunctional performance criteria of a fuel and/or lubricating oil compn.

STbranched polyolefin polymer additive fuel; lubricating oil branched polyolefin polymer additive

IT Fuel oil additives (branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Dendritic polymers

Polyolefins

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Polysiloxanes, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Gasoline additives

(deposit inhibitors; branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Lubricating oil additives

(dispersants; branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Polyvinyl acetals

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(formals, reaction products with polyolefins; branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Polymerization

ΙT

(graft; branched polyolefin polymers as additives in fuel and lubricating oil compns.)

IT Lubricating oil additives

(viscosity improvers; branched polyolefin polymers as additives in fuel and lubricating oil compns.)

101-54-2DP, N-Phenyl-p-phenylenediamine, reaction products with maleic anhydride-grafted branched polyolefins 108-31-6DP, 2,5-Furandione, reaction products with polyolefins and backbone polymers, uses 109-55-7DP, reaction products with maleic anhydride-grafted 112-57-2DP, reaction products with maleic branched polyolefins anhydride-grafted branched polyolefins 280-64-8DP, 9-Borabicyclo[3.3.1] nonane, reaction products with polyolefins 4,4'-Diaminodiphenylamine, reaction products with dendrimers and polyolefins 2038-03-1DP, 4-(2-Aminoethyl)morpholine, reaction products 2094-99-7DP, reaction with maleic anhydride-grafted branched polyolefins products with polyolefins, Me methacrylate and styrene 7338-27-4DP, Methyl itaconate, reaction products with tris(aminoethyl)benzene and 9002-88-4DP, Polyethylene, reaction hydroxy-terminated polyolefins products with polymeric backbones 9003-07-0DP, Polypropylene, reaction products with polymeric backbones 9003-11-6DP, diamine derivs., reaction products with maleic anhydride-grafted branched polyolefins 9004-73-3DP, Polymethylhydrosiloxane, reaction products with polyolefins 9010-79-1DP, Ethylene-propylene copolymer, reaction products with polymeric backbones 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with amine-terminated polyolefins 10025-78-2DP, Trichlorosilane, reaction products with polyolefins 25189-84-8DP, Poly(acryloyl chloride), reaction products with polyolefins 26471-62-5DP, Tdi, isocyanurate derivs., reaction products with hydroxy-terminated polyolefins 26587-28-0P, Ethylene-propylene-1-octene copolymer 26937-45-1DP, Poly(methacryloyl chloride), reaction products with 118550-50-8DP, Tolonate HDT, reaction products with polyolefins 202073-27-6P **202073-28-7P** polyolefins 181116-31-4P 202073-29-8P 202073-30-1P 202073-31-2P 202073-32-3P 202073-33-4P 202073-34-5P 202073-35-6DP,

1,3,5-Benzenetriethanamine, reaction products with Me itaconate and polyolefins

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(branched polyolefin polymers as additives in fuel and lubricating oil compns.)

1T 109-55-7DP, reaction products with maleic anhydride-grafted branched polyolefins 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with amine-terminated polyolefins 25189-84-8DP, Poly(acryloyl chloride), reaction products with polyolefins 26937-45-1DP, Poly(methacryloyl chloride), reaction products with polyolefins 202073-28-7P 202073-33-4P 202073-34-5P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(branched polyolefin polymers as additives in fuel and lubricating oil compns.)

RN 109-55-7 HCAPLUS

CN 1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_3-NMe_2$ 

RN 9011-13-6 HCAPLUS

CN 2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 3

CRN 108-31-6 CMF C4 H2 O3

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 25189-84-8 HCAPLUS

CN 2-Propenoyl chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 814-68-6 CMF C3 H3 Cl O

RN 26937-45-1 HCAPLUS

CN 2-Propenoyl chloride, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 920-46-7 CMF C4 H5 Cl O

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ & \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{C1} \end{array}$$

RN 202073-28-7 HCAPLUS

CN Silanediol, methyl-, polymer with ethene, 1-propene and 2,4,6,8-tetraethenyl-2,4,6,8-tetramethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

CM 2

CRN 2554-06-5 CMF C12 H24 O4 Si4

$$Me$$
 $CH = CH_2$ 
 $Me$ 
 $O = Si$ 
 $Me$ 
 $O = Si$ 
 $Me$ 
 $O = Si$ 
 $O = CH = CH_2$ 
 $O = CH = CH_2$ 

CM 3

CRN 115-07-1 CMF C3 H6

 $_{\rm H3C-CH} = _{\rm CH2}$ 

CM 4

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

RN 202073-33-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenoyl chloride, methylsilanediol and 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

OH | HO-SiH-CH3

CM 2

CRN 920-46-7 CMF C4 H5 Cl O

CM 3

CRN 280-64-8 CMF C8 H15 B



CRN 115-07-1 CMF C3 H6

 $_{\rm H3C-CH} = _{\rm CH2}$ 

CM 5

CRN 97-90-5 CMF C10 H14 O4

CM 6

CRN 80-62-6 CMF C5 H8 O2

CM 7

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

RN 202073-34-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 9-borabicyclo[3.3.1]nonane, ethene, methyl 2-methyl-2-propenoate, methylsilanediol and 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 43641-90-3 CMF C H6 O2 Si

CM 2

CRN 280-64-8 CMF C8 H15 B



CM 3

CRN 115-07-1 CMF C3 H6

$$_{
m H3C-CH}=_{
m CH2}$$

CM 4

CRN 97-90-5 CMF C10 H14 O4

CM 5

CRN 80-62-6 CMF C5 H8 O2

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

L46 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:211034 HCAPLUS

DN 126:200231

TI Uniform antistatic thermoplastic resin compositions

IN Tsubaki, Takayuki; Nakayama, Yutaka; Sumi, Hideyuki; Hotta, Hiroshi

PA Dai-Ichi Kogyo Seiyaku Co., Ltd., Japan

SO Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C08L101-00

ICS C08L025-06

ICI C08L101-00, C08L023-08, C08L101-00; C08L025-06, C08L023-08, C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.					KIND	DATE		7 DI	PLICATION NO.	DATE
						KIND	KIND DAIL		AFI	LICATION NO.	DAIE
	PI		7559 7559			A2 A3	19970129 19980429		EP	1996-305452	19960725
		ΕP	7559	83		B1	20020710				
			R:	DE,	FR,	GB, IT					
		JP	0927	2805		A2	19971021		JΡ	1996-161572	19960621
		TW	4207	07		В	20010201		TW	1996-85108034	19960703
		US	5654	369		A	19970805		US	1996-681023	19960722
	PRAI	JP	1995	-189	137	Α	19950725				
	JP 1996-19994			94	Α	19960206					
		JP	1996	-161	572	Α	19960621				
	CT										

AB Thermoplastic resin compns. uniformly and permanently rendered antistatic comprise (A) 100 parts thermoplastic resin, (B) 3-30 parts cationic copolymer (wt.-av. mol. wt. 1000-50,000) comprising 80-98% mol% of an ethylene unit and 2-20 mol% of a cationic unit, and (C) 0.1-10 parts copolymer (wt.-av. mol. wt. 800-200,000) comprising .gtoreq.1 unit each per mol. of a structural unit (CH2C(R7)(R8)) and a structural unit of I wherein R7 = H or Me, R8 = H, C1-42 alkyl, Ph, or CO2R9, R9 = C1-4 alkyl, Y = O or NR10, and R10 = alkyl, aryl, aralkyl, or a quaternary

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ammonium-contq. group. Since polymer (B) exists in a continual layer near the surface of the matrix resin, the built-in antistatic properties are hardly decreased by abrasion and washing of the surface. Also, since the antistatic component (B) is precluded from bleeding out, the resin surface does not become tacky or deteriorate in printability. Incorporation of polymer (C) results in a uniform fine dispersion of the cationic polymer (B) in the matrix so that a uniform distribution of antistatic properties is obtained. Polymer (C) provides the addnl. advantage that the amt. of antistatic component (B) can be reduced to attain a given antistatic performance. uniform antistatic thermoplastic compn; cationic polymer antistatic thermoplastic compn; maleimide contg polymer antistatic thermoplastic; maleic anhydride polymer antistatic thermoplastic Polyesters, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ABS blends and; thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydrideand/or maleimide-contg. polymers) Polyamides, properties Polycarbonates, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ABS blends; thermoplastic compns. rendered uniformly and permanently antistatic contq. cationic polymers and maleic anhydrideand/or maleimide-contg. polymers) Polvelectrolytes RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (cationic; thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydrideand/or maleimide-contg. polymers) Antistatic agents (thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers) Linear low density polyethylenes Polyamides, properties Polymer blends RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers) Alkenes, preparation RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (.alpha.-, maleic anhydride polymers, imide derivs.; thermoplastic compns. rendered uniformly and permanently antistatic contq. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers) 26062-94-2, Poly(butylene terephthalate) RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(ABS blends; thermoplastic compns. rendered uniformly and

```
permanently antistatic contg. cationic polymers and maleic anhydride-
        and/or maleimide-contg. polymers)
     24968-12-5, Poly(butylene terephthalate)
TI
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (Toray PBT 1401 and ABS blends; thermoplastic compns.
        rendered uniformly and permanently antistatic contg. cationic polymers
        and maleic anhydride- and/or maleimide-contg. polymers)
ΙT
     9002-88-4, Polyethylene
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (high- and low-d.; thermoplastic compns. rendered uniformly
        and permanently antistatic contg. cationic polymers and maleic
        anhydride- and/or maleimide-contq. polymers)
IT
     100-42-5D, Styrene, polymers
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (impact-resistant; thermoplastic compns. rendered uniformly
        and permanently antistatic contg. cationic polymers and maleic
        anhydride- and/or maleimide-contg. polymers)
     74-85-1D, Ethene, polymers with .alpha.-olefins, properties
IΤ
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (linear low-d.; thermoplastic compns. rendered uniformly and
        permanently antistatic contg. cationic polymers and maleic anhydride-
        and/or maleimide-contg. polymers)
     62-53-3DP, Aniline, reaction products with maleate-contg. polymers
ΙT
     64-67-5DP, Diethyl sulfate, reaction products with tertiary amine-contg.
               66-27-3DP, Methyl methanesulfonate, reaction products with
     polymers
                                      74-88-4DP, Methyl iodide, reaction
     tertiary amine-contg. polymers
     products with tertiary amine-contq. polymers 100-46-9DP, Benzylamine,
                                                     108-00-9DP, reaction
     reaction products with maleate-contg. polymers
     products with carboxy or anhydride-contg. polymers, quaternized
     108-31-6DP, 2,5-Furandione, reaction products with polypropylene, imide
                          108-91-8DP, Cyclohexylamine, reaction products with
     derivs., preparation
     maleate-contg. polymers 109-55-7DP, reaction products with
     carboxy or anhydride-contg. polymers, quaternized
                                                        124-22-1DP,
     Laurylamine, reaction products with maleate-contg. polymers
     Stearyl amine, reaction products with maleate-contg. polymers
     9003-07-0DP, Polypropylene, maleated, imide derivs. 9010-77-9DP,
     Acrylic acid-ethylene copolymer, dimethylaminoalkyl amides,
     quaternized 9011-13-6DP, SMA 3000, ammonioalkyl imide
     derivs. and imide derivs. 10076-31-0DP, reaction products with
     maleate-contg. polymers 25134-48-9DP, Acrylic
     acid-ethyl acrylate-ethylene copolymer, dimethylaminoalkyl
     amides, quaternized
                         127670-10-4DP, Dia Carna PA 168, imide derivs.
     187682-77-5P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (thermoplastic compns. rendered uniformly and permanently
        antistatic contq.)
     9003-07-0, Polypropylene 9003-56-9, ABS 9011-14-7,
TΤ
     Acrypet MD
                  32131-17-2, Leona 1300S, properties
                                                        179865-23-7, Macsllov
             187852-92-2, Macslloy BK 102
                                            187853-03-8, Polyethy LL-UF 440
     187853-08-3, Techniace T 210
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
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(thermoplastic **compns**. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers)

IT 26062-94-2, Poly(butylene terephthalate)

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(ABS blends; thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydrideand/or maleimide-contg. polymers)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4 CMF C4 H10 O2

 $^{\rm HO-}$  (CH<sub>2</sub>)<sub>4</sub> $^{\rm -}$ OH

CM 2

CRN 100-21-0 CMF C8 H6 O4

IT 24968-12-5, Poly(butylene terephthalate)

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(Toray PBT 1401 and ABS blends; thermoplastic compns.

rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediyloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)

IT 109-55-7DP, reaction products with carboxy or anhydride-contg.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

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polymers, quaternized 9010-77-9DP, Acrylic
     acid-ethylene copolymer, dimethylaminoalkyl amides, quaternized
     9011-13-6DP, SMA 3000, ammonioalkyl imide derivs. and
     imide derivs. 25134-48-9DP, Acrylic acid-ethyl
     acrylate-ethylene copolymer, dimethylaminoalkyl amides,
     quaternized 187682-77-5P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation);
     PRP (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (thermoplastic compns. rendered uniformly and permanently
        antistatic contq.)
RN
     109-55-7 HCAPLUS
CN
     1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)
H_2N - (CH_2)_3 - NMe_2
RN
     9010-77-9 HCAPLUS
     2-Propenoic acid, polymer with ethene (9CI) (CA INDEX NAME)
CN
     CM
         79-10-7
     CRN
     CMF C3 H4 O2
но- с- сн == сн2
          2
     CM
     CRN
         74-85-1
     CMF C2 H4
H_2C = CH_2
     9011-13-6 HCAPLUS
RN
CN
     2,5-Furandione, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
     CM
          1
     CRN 108-31-6
     CMF
         C4 H2 O3
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FORTUNA 10/019161 Page 54
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CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 25134-48-9 HCAPLUS

CN 2-Propenoic acid, polymer with ethene and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5 CMF C5 H8 O2

O || EtO- C- CH== CH<sub>2</sub>

CM 2

CRN 79-10-7 CMF C3 H4 O2

 $\begin{array}{c} \text{O} \\ \parallel \\ \text{HO-C-CH} = \text{CH}_2 \end{array}$ 

CM 3

CRN 74-85-1 CMF C2 H4

 $H_2C = CH_2$ 

RN 187682-77-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethene and ethyl 2-propenoate, 2-(dimethylamino)ethyl ester, compd. with diethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5 CMF C4 H10 O4 S

CRN 187682-76-4 CMF (C5 H8 O2 . C3 H4 O2 . C2 H4)x . x C4 H11 N O

CM 3

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 4

CRN 25134-48-9

CMF (C5 H8 O2 . C3 H4 O2 . C2 H4)  $\times$  CCI PMS

CM 5

CRN 140-88-5 CMF C5 H8 O2

CM 6

CRN 79-10-7 CMF C3 H4 O2

CM 7

CRN 74-85-1 CMF C2 H4

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

 $H_2C = CH_2$ 

IT 9003-56-9, ABS 9011-14-7, Acrypet MD

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(thermoplastic compns. rendered uniformly and permanently antistatic contg. cationic polymers and maleic anhydride- and/or maleimide-contg. polymers)

RN 9003-56-9 HCAPLUS

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$ 

CM 2

CRN 106-99-0 CMF C4 H6

 $H_2C = CH - CH = CH_2$ 

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 9011-14-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 80-62-6 CMF C5 H8 O2

 $\begin{array}{c|c} ^{H_2C} & \text{O} \\ \parallel & \parallel \\ \text{Me-} \text{C--} \text{C--} \text{OMe} \end{array}$ 

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L46 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS
     1995:543507 HCAPLUS
AN
DN
     122:268273
ΤI
    Aqueous resin compositions
    Harui, Nobuo; Rainaa, Buruno Furingusu; Geruwarudo, Efu Guraae
IN
     Dainippon Ink & Chemicals, Japan
PΑ
     Jpn. Kokai Tokkyo Koho, 18 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
     ICM C08L035-00
     ICS C08F222-38; C08L101-02; C09D135-00; C09D201-02
     42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
     PATENT NO.
                   KIND DATE
                                          APPLICATION NO. DATE
     JP 06306251
                      A2 19941101
                                           JP 1994-25312 19940223
PΙ
                           19930225
PRAI JP 1993-36567
     Vinyl polymers having main chains contg. amide carboxylic acid structures
AΒ
     are neutralized with basic substances and dispersed in
     water to prep. the title compns. Thus,
     300:300:100:200:100 trimethylsilyloxyethyl methacrylate-2-ethylhexyl
     methacrylate-lauryl methacrylate-styrene-maleic anhydride copolymer was
     prepd., treated with taurine, dispersed in aq. Et3N,
     mixed with Cymel 303 and Denacol 612, coated on glass, and cured to form a
     coating.
     vinyl polymer amic acid coating
st
IΤ
     Coating materials
        (aq. coating materials contq. melamine and epoxy resins and vinyl
        polymers contq. amic acid groups)
ΙT
     Polymerization
        (of vinyl compds.; aq. coating materials contq. melamine and epoxy
        resins and vinyl polymers contg. amic acid groups)
IT
     Carboxylic acids, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (amic, aq. coating materials contg. melamine and epoxy resins and vinyl
        polymers contg. amic acid groups)
TΤ
     Vinyl compounds, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (polymers, aq. coating materials contq. melamine and epoxy resins and
        vinyl polymers contq. amic acid groups)
     71-36-3DP, Butanol, reaction products with dimethylaminopropylamine and
IT
     anhydride group-contg. vinyl polymers 107-35-7DP, Taurine, reaction
     products with anhydride group-contg. vinyl polymers 109-55-7DP,
     3-Dimethylaminopropylamine, reaction products with butanol and anhydride
     group-contg. vinyl polymers 162958-41-0DP, reaction products
     with taurine 162958-42-1DP, reaction products with taurine
     162958-43-2DP, reaction products with butanol and
     dimethylaminopropylamine 162958-44-3DP, reaction products with
     taurine
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (aq. coating materials)
IT
     9003-08-1, Cymel 303 71228-86-9, Denacol EX 612
```

RL: TEM (Technical or engineered material use); USES (Uses) (aq. coating materials contg. melamine and epoxy resins and vinyl polymers contg. amic acid groups)

1T 109-55-7DP, 3-Dimethylaminopropylamine, reaction products with butanol and anhydride group-contg. vinyl polymers 162958-41-0DP, reaction products with taurine 162958-42-1DP, reaction products with taurine 162958-43-2DP, reaction products with butanol and dimethylaminopropylamine 162958-44-3DP, reaction products with taurine

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aq. coating materials)

RN 109-55-7 HCAPLUS

CN 1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

 $H_2N-(CH_2)_3-NMe_2$ 

RN 162958-41-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with dihydro-3-methylene-2,5-furandione, ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2170-03-8 CMF C5 H4 O3

CM 2

CRN 688-84-6 CMF C12 H22 O2

CM 3

CRN 142-90-5 CMF C16 H30 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{Me-(CH}_2)_{11}\text{-O-C-C-Me} \end{array}$$

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

RN 162958-42-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2,5-furandione and 2-[(trimethylsilyl)oxy]ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 17407-09-9 CMF C9 H18 O3 Si

CM 2

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \\ \mid \\ \text{Et}-\text{CH}-\text{Bu-n} \end{array}$$

CRN 142-90-5 CMF C16 H30 O2

CM 4

CRN 108-31-6 CMF C4 H2 O3

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 162958-43-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2,5-furandione, 2-methylpropyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2 \text{--O-C-C-Me} \\ \parallel & \parallel \\ \text{Et-CH-Bu-n} \end{array}$$

CM 2

CRN 142-90-5 CMF C16 H30 O2

$$$^{\text{O}}_{\text{CH}_2}$$$
 Me- (CH2) 11-O-C-C-Me

CRN 108-31-6 CMF C4 H2 O3

CM

CRN 100-42-5 CMF C8 H8

$$_{\text{H}_2\text{C}} = _{\text{CH}} - _{\text{Ph}}$$

CM 5

CRN 97-86-9 CMF C8 H14 O2

CM 6

CRN 79-10-7 CMF C3 H4 O2

162958-44-3 HCAPLUS RN

2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with ethenylbenzene, CN2-(1-ethoxyethoxy)ethyl 2-methyl-2-propenoate, 2-ethylhexyl 2-methyl-2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

CM1 CRN 28292-92-4 CMF C10 H18 O4

CM 2

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2\text{--O-C-C-Me} \\ \parallel \\ \text{Et--CH-Bu-n} \end{array}$$

CM 3

CRN 142-90-5 CMF C16 H30 O2

$$$^{\rm O}_{\rm H_2}$$$
 Me- (CH2)  $_{\rm 11}$  - O- C- C- Me

CM 4

CRN 108-31-6 CMF C4 H2 O3

CM .

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

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L46 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2003 ACS
     1995:175987 HCAPLUS
AN
DN
     122:216763
    Resin compositions for in-mold coating of thermosetting resins
TI
IN
    Morishita, Natsuki
    Sekisui Chemical Co Ltd, Japan
PA
     Jpn. Kokai Tokkyo Koho, 18 pp.
SO
    CODEN: JKXXAF
DT
    Patent
    Japanese
LA
    ICM C08F299-02
    ICS C08F002-44; C08L033-00
ICA B29C043-20
ICI B29K101-10, B29K105-06
    42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1
                  KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
                     ____
                                           _____
PI JP 06220145 A2 19940809
PRAI JP 1993-13275 19930129
                                           JP 1993-13275 19930129
     The compns., used for coating of thermosetting resins by
     applying on semicured thermosetting resins in a mold, comprise polyamines
     or unsatd. amines, carboxy-contg. resins, and coloring pigments and are
     thickened to the viscosity being 150-550 P at 25.degree. The
     compns. comprising (A) polyamines or unsatd. amines,
     polycarboxylic acids, and coloring pigments, (B) polyamines, unsatd. carboxylic acids, and coloring pigments, or (C) alk. earth metal or Zn
     oxides or hydroxides, carboxy-contg. resins, and coloring pigments are
     also claimed. Thus, a sheet molding compd. comprising unsatd. polyester
     70, polystyrene-styrene soln. 30, NS 100 120, Kayabutyl B 1, Kyowamag 150
     1, Zn stearate 3, and ER 4630LBD 166W (glass roving) 60 parts was charged
     in a heating mold, pressed for 100 s, coated with a compn.
     (viscosity 250 P) contg. a styrene soln. of 6:4:10 (mol) isophthalic
     acid-maleic anhydride-propylene glycol copolymer 99, hexamethylenediamine
     1, Ti-Pure 900 40, Yellow 9121 (Titan Yellow) 10, NS 100 50, and Kayabutyl
     B 1 part, and further pressed for 120 s to give a coated product showing
     good appearance and color evenness.
     unsatd polyester polyamide coating SMC; pigment dispersibility
     polyamide coating SMC
ΙT
     Polyamides, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (epoxy, unsatd., coatings; acid- and amine-contg. resin compns
        . with good pigment dispersibility for in-mold coating of
        thermosetting resins)
IT
     Coating materials
        (in-mold, acid- and amine-contg. resin compns. with good
        pigment dispersibility for in-mold coating of thermosetting
        resins)
ΙT
     Epoxy resins, uses
     Urethane polymers, uses
     RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (methacrylates, coatings, contg. polyamides; acid- and amine-contg.
        resin compns. with good pigment dispersibility for
        in-mold coating of thermosetting resins)
IT
     Epoxy resins, uses
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Polyesters, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (polyamide-, unsatd., coatings; acid- and amine-contg. resin
        compns. with good pigment dispersibility for in-mold
        coating of thermosetting resins)
IT
     Polyamides, uses
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (polyester-, unsatd., coatings; acid- and amine-contg. resin
        compns. with good pigment dispersibility for in-mold
        coating of thermosetting resins)
IT
     Polyesters, processes
     RL: PEP (Physical, engineering or chemical process); PROC (Process)
        (unsatd., in-mold coating of; acid- and amine-contg. resin
        compns. with good pigment dispersibility for in-mold
        coating of thermosetting resins)
IT
     81871-88-7P, Bisphenol A-epichlorohydrin copolymer
     methacrylate-styrene copolymer 104269-37-6P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (blends with polyamides, coatings; acid- and amine-contg. resin
        compns. with good pigment dispersibility for in-mold
        coating of thermosetting resins)
     32131-17-2P, uses 65553-73-3P 67510-70-7P, Methacrylic
ΙT
     acid-methyl methacrylate copolymer calcium salt 161538-99-4P
     161566-93-4P 161589-16-8P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (blends with thermosetting resins, coatings; acid- and amine-contg.
        resin compns. with good pigment dispersibility for
        in-mold coating of thermosetting resins)
     161538-95-0P 161538-96-1P 161538-97-2P
ΙT
     161538-98-3P 161539-00-0P 161539-01-1P
     161539-03-3P 161539-04-4P 161539-05-5P
     161589-17-9P 161589-19-1P 161843-98-7P
     161843-99-8P 161897-81-0P 161929-47-1P
     162023-53-2P 162157-77-9P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (coatings; acid- and amine-contg. resin compns. with good
        pigment dispersibility for in-mold coating of thermosetting
        resins)
ΙT
     100-42-5D, polymers with unsatd. polyesters
     RL: PEP (Physical, engineering or chemical process); PROC (Process)
        (in-mold coating of; acid- and amine-contg. resin compns.
        with good pigment dispersibility for in-mold coating of
        thermosetting resins)
     81871-88-7P, Bisphenol A-epichlorohydrin copolymer
     methacrylate-styrene copolymer 104269-37-6P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (blends with polyamides, coatings; acid- and amine-contg. resin
        compns. With good pigment dispersibility for in-mold
        coating of thermosetting resins)
     81871-88-7 HCAPLUS
RN
     Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane,
CN
     2-methyl-2-propenoate, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
```

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CM 1

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 2

CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 3

CRN 79-41-4 CMF C4 H6 O2

CH<sub>2</sub> || Me-C-CO<sub>2</sub>H

CM 4

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 5

CRN 106-89-8 CMF C3 H5 Cl O

CH<sub>2</sub>-Cl

СМ б

CRN 80-05-7 CMF C15 H16 O2

HO Me OH Me Me

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

RN 104269-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,3-diisocyanatomethylbenzene, ethenylbenzene and .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS

D1-Me

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

HO 
$$(C_3H_6) - O$$
 H

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 100-42-5 CMF C8 H8

H2C==CH-Ph

```
65553-73-3P 67510-70-7P, Methacrylic acid-methyl
     methacrylate copolymer calcium salt 161538-99-4P
     161589-16-8P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Uses)
        (blends with thermosetting resins, coatings; acid- and amine-contg.
        resin compns. with good pigment dispersibility for
        in-mold coating of thermosetting resins)
     65553-73-3 HCAPLUS
RN
CN
     2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate,
     magnesium salt (9CI) (CA INDEX NAME)
     CM
          1
         25086-15-1
     CMF
         (C5 H8 O2 . C4 H6 O2)x
     CCI PMS
          CM
               2
          CRN 80-62-6
          CMF C5 H8 O2
 H<sub>2</sub>C O
   Me-C-C-OMe
          CM
               3
          CRN 79-41-4
          CMF C4 H6 O2
   CH<sub>2</sub>
Me-C-CO2H
     67510-70-7 HCAPLUS
     2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate,
     calcium salt (9CI) (CA INDEX NAME)
     CM
          1
         25086-15-1
     CMF
         (C5 H8 O2 . C4 H6 O2)x
     CCI
         PMS
          CM
               2
          CRN 80-62-6
          CMF C5 H8 O2
```

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2\text{H} \end{array}$$

RN 161538-99-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,6-hexanediamine and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4 CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CM 2

CRN 80-62-6 CMF C5 H8 O2

CM 3

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2\text{H} \end{array}$$

RN 161589-16-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CRN 108-78-1 CMF C3 H6 N6

CM 2

CRN 80-62-6 CMF C5 H8 O2

CM 3

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

IT 161538-95-0P 161538-96-1P 161538-97-2P 161538-98-3P 161539-00-0P 161539-01-1P 161539-03-3P 161539-04-4P 161539-05-5P 161589-19-1P 161843-98-7P 161843-99-8P 161897-81-0P 161929-47-1P 162023-53-2P 162157-77-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coatings; acid- and amine-contg. resin compns. with good pigment dispersibility for in-mold coating of thermosetting resins)

RN 161538-95-0 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with ethenylbenzene, 2,5-furandione, 1,6-hexanediamine and 1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4 CMF C6 H16 N2  $H_2N-(CH_2)_6-NH_2$ 

CM 2

CRN 121-91-5 CMF C8 H6 O4

HO<sub>2</sub>C CO<sub>2</sub>H

CM 3

CRN 108-31-6 CMF C4 H2 O3

0 0

CM 4

CRN 100-42-5 CMF C8 H8

 $_{\rm H2C}$  CH- Ph

CM 5

CRN 57-55-6 CMF C3 H8 O2

OH | H3C-CH-CH2-OH

RN 161538-96-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,3-diisocyanatomethylbenzene, ethenylbenzene, 1,6-hexanediamine, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2

CCI IDS

D1-Me

CM 2

CRN 25322-69-4

CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO = \left[ -(C_3H_6) - O \right]_n H$$

CM 3

CRN 868-77-9

CMF C6 H10 O3

CM 4

CRN 124-09-4

CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CM5

CRN 100-42-5 CMF C8 H8

 $\text{H}_2\text{C} = \text{CH} - \text{Ph}$ 

CM 6

CRN 79-41-4 CMF C4 H6 O2

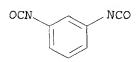
 $\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$ 

RN 161538-97-2 HCAPLUS

CN Hexanedioic acid, polymer with 1,3-diisocyanatomethylbenzene, ethenylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS



D1-Me

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO \longrightarrow (C_3H_6) - O \longrightarrow n$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CRN 124-04-9 CMF C6 H10 O4

$$_{\rm HO_2C^-}$$
 (CH<sub>2</sub>)<sub>4</sub>-CO<sub>2</sub>H

CM 5

CRN 100-42-5 CMF C8 H8

$$_{\rm H2C} = _{\rm CH-Ph}$$

CM 6

CRN 79-39-0 CMF C4 H7 N O

RN 161538-98-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with ethenylbenzene, 2,5-furandione, 2-methyl-2-propenamide and 1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

CRN 121-91-5 CMF C8 H6 O4

CM 2

CRN 108-31-6

CMF C4 H2 O3

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 79-39-0 CMF C4 H7 N O

CM 5

CRN 57-55-6 CMF C3 H8 O2

RN 161539-00-0 HCAPLUS

1,3-Benzenedicarboxylic acid, polymer with ethenylbenzene, 2,5-furandione and 1,2-propanediol, magnesium salt (9CI) (CA INDEX NAME)

CM 1

CRN 32626-12-3

CMF (C8 H8 . C8 H6 O4 . C4 H2 O3 . C3 H8 O2)x

CCI PMS

CM 2

CRN 121-91-5 CMF C8 H6 O4

CM 3

CRN 108-31-6 CMF C4 H2 O3

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 57-55-6 CMF C3 H8 O2

RN 161539-01-1 HCAPLUS

CN 2,5-Furandione, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, and ethenylbenzene, calcium salt (9CI) (CA INDEX NAME)

CM 1

CRN 125984-77-2

CMF ((C15 H16 O2 . C3 H5 Cl O)x . C8 H8 . x C4 H6 O2 . C4 H2 O3)x CCI PMS

CM 2

CRN 108-31-6 CMF C4 H2 O3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2\text{H} \end{array}$$

CM 6

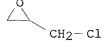
CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 7

CRN 106-89-8 CMF C3 H5 Cl O



CM 8

CRN 80-05-7 CMF C15 H16 O2

RN 161539-03-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, ethenylbenzene, 2,5-furandione and 1,2-propanediol, zinc salt (9CI) (CA INDEX NAME)

CM 1

CRN 161539-02-2

CMF ((C15 H16 O2 . C3 H5 Cl O)x . C8 H8 . C8 H6 O4 . x C4 H6 O2 . C4 H2 O3 . C3 H8 O2)x

CCI PMS

CM 2

CRN 121-91-5 CMF C8 H6 O4

CM 3

CRN 108-31-6 CMF C4 H2 O3

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 57-55-6

CMF C3 H8 O2

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_{3}\text{C}-\text{CH}-\text{CH}_{2}-\text{OH} \end{array}$$

CM 6

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 7

CRN 79-41-4 CMF C4 H6 O2

CM 8

CRN 25068-38-6 CMF (C15 H16 O2 . C3 H5

CMF (C15 H16 O2 . C3 H5 Cl O)x CCI PMS

CM 9

CRN 106-89-8 CMF C3 H5 Cl O

CM 10

CRN 80-05-7 CMF C15 H16 O2

RN 161539-04-4 HCAPLUS

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CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, 1,3-diisocyanatomethylbenzene, ethenylbenzene, 2,5-furandione, 1,6-hexanediamine and .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS

D1-Me

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 124-09-4 CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CM 5

CRN 108-31-6 CMF C4 H2 O3

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 7

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 9

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 C1 O) $\times$ 

CCI PMS

CM 10

CRN 106-89-8 CMF C3 H5 Cl O

CM 11

CRN 80-05-7 CMF C15 H16 O2

RN 161539-05-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,3-diisocyanatomethylbenzene, ethenylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-propen-1-amine (9CI) (CA INDEX NAME)

CM 1

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS

D1-Me

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO \longrightarrow (C_3H_6) - O \longrightarrow n$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CRN 107-11-9 CMF C3 H7 N

 $H_2C = CH - CH_2 - NH_2$ 

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 6

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{ccc} ^{\text{H}_2\text{C}} & \text{O} \\ & || & || \\ \text{Me-C-C-OMe} \end{array}$$

CM 7

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

RN 161589-19-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, 1,3-diisocyanatomethylbenzene, ethenylbenzene, 2,5-furandione and .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], magnesium salt (9CI) (CA INDEX NAME)

CM 1

CRN 161589-18-0

CMF ((C15 H16 O2 . C3 H5 C1 O)x . C9 H6 N2 O2 . C8 H8 . C6 H10 O3 . x C4 H6 O2 . C4 H2 O3 . (C3 H6 O)n H2 O)x

CCI PMS

CM 2

CRN 26471-62-5 CMF C9 H6 N2 O2

CCI IDS

D1-Me

CM 3

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

CM 4

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}$$
  $^{\rm O}$   $^{\rm H}$   $^{\rm H}$   $^{\rm Me-C-C-O-CH_2-CH_2-OH}$ 

CM 5

CRN 108-31-6 CMF C4 H2 O3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 7

CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

CM 9

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 10

CRN 106-89-8 CMF C3 H5 Cl O

CM 11

CRN 80-05-7 CMF C15 H16 O2

RN 161843-98-7 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, 1,3-diisocyanatomethylbenzene, ethenylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-propen-1-amine (9CI) (CA INDEX NAME)

CM :

CRN 26471-62-5 CMF C9 H6 N2 O2 CCI IDS

D1-Me

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO - \left[ (C_3H_6) - O - \right]_n H$$

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 121-91-5 CMF C8 H6 O4

CM 5

CRN 107-11-9 CMF C3 H7 N

 $_{\text{H}_2\text{C}}=\text{CH-CH}_2-\text{NH}_2$ 

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 7

CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 9

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 10

CRN 106-89-8

CMF C3 H5 Cl O

CM 11

CRN 80-05-7 CMF C15 H16 O2

RN 161843-99-8 HCAPLUS

CN 2,5-Furandione, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, ethenylbenzene and 2-propen-1-amine (9CI) (CA INDEX NAME)

CM 1

CRN 108-31-6 CMF C4 H2 O3

CM 2

CRN 107-11-9 CMF C3 H7 N

 $H_2C = CH - CH_2 - NH_2$ 

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 5

CRN 79-41-4 CMF C4 H6 O2

 $\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$ 

см б

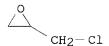
CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 7

CRN 106-89-8 CMF C3 H5 Cl O



CM 8

CRN 80-05-7 CMF C15 H16 O2

RN 161897-81-0 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, mono[2-[(1-oxo-2-propenyl)oxy]ethyl] ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, ethenylbenzene and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 30697-40-6

CMF C13 H12 O6

$$\begin{array}{c|c}
O & O & O \\
C - O - CH_2 - CH_2 - O - C - CH == CH_2
\end{array}$$

$$\begin{array}{c|c}
CO_2H
\end{array}$$

CM 2

CRN 108-78-1 CMF C3 H6 N6

CM 3

CRN 100-42-5 CMF C8 H8

 $_{\mathrm{H_2C}} = _{\mathrm{CH-Ph}}$ 

CM 4

CRN 61970-25-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 5

CRN 79-41-4 CMF C4 H6 O2

CM 6

CRN 25068-38-6 CMF (C15 H16 O2 . C3 H5 Cl O)x

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CCI PMS

CM 7

CRN 106-89-8 CMF C3 H5 Cl O

CH<sub>2</sub>-Cl

CM 8

CRN 80-05-7 CMF C15 H16 O2

RN 161929-47-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate and 2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 2

CRN 80-62-6 CMF C5 H8 O2

CM 3

CRN 79-41-4

CMF C4 H6 O2

CM 4

CRN 79-39-0 CMF C4 H7 N O

CM 5

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 6

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

CM 7

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 8

CRN 106-89-8 . CMF C3 H5 Cl O

CM 9

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CRN 80-05-7 CMF C15 H16 O2

RN 162023-53-2 HCAPLUS

CN 2,5-Furandione, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-propenoate, ethenylbenzene and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 108-78-1 CMF C3 H6 N6

CM 2

CRN 108-31-6 CMF C4 H2 O3

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

CM 5

CRN 79-41-4 CMF C4 H6 O2

 $\begin{array}{c} \text{CH}_2 \\ | \\ \text{Me-} \text{C-} \text{CO}_2 \text{H} \end{array}$ 

CM 6

CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O) $\times$ 

CCI PMS

CM 7

CRN 106-89-8 CMF C3 H5 Cl O

CH<sub>2</sub>-Cl

CM 8

CRN 80-05-7 CMF C15 H16 O2

HO Me OH

RN 162157-77-9 HCAPLUS

1,3-Benzenedicarboxylic acid, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-methyl-2-propenoate, ethenylbenzene, 2,5-furandione, 1,6-hexanediamine, 1,2-propanediol and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4 CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CRN 121-91-5 CMF C8 H6 O4

CM3

CRN 108-78-1 CMF C3 H6 N6

CM

CRN 108-31-6 CMF C4 H2 O3

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

6 CM

CRN 57-55-6 CMF C3 H8 O2

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_{\text{3C}}-\text{CH}-\text{CH}_{\text{2}}-\text{OH} \end{array}$$

CRN 61970-25-0 CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O2

> CM8

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

9 CM

CRN 25068-38-6

(C15 H16 O2 . C3 H5 Cl O)x CMF CCI PMS

CM 10

CRN 106-89-8 CMF C3 H5 Cl O

CM11

CRN 80-05-7 CMF C15 H16 O2

L46 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS AN 1992:43188 HCAPLUS

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

```
116:43188
DN
TI
    Matte coating compositions
    Ozaki, Makoto; Kageyama, Takao; Saito, Takehiro
IN
    Nippon Paint Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 10 pp.
    CODEN: JKXXAF
DT
    Patent
LΑ
    Japanese
IC
    ICM C09D005-00
    42-10 (Coatings, Inks, and Related Products)
CC
FAN.CNT 1
                    KIND DATE
    PATENT NO.
                                        APPLICATION NO. DATE
     _____
PRAI JP 1989-199227

AB The titl
                                         JP 1989-199227 19890802
    The title compns. with good weatherability and decorative
    property comprise 100 parts thermosetting or thermoplastic resins, 1-100
    parts composite particles loaded with pigments, and 10-1000 parts
    solvents. Thus, styrene 92, Me methacrylate 140, Bu acrylate 20,
    ethylhexyl methacrylate 116, and itaconic anhydride 32 g were polymd. and
    neutralized with 38.5 g stearylamine and 50.8 g dimethylethanolamine to
    give a 51.5%-solid amphoteric polymer varnish, which was blended with 168
     g carbon black and 480 g AcOEt to give a black pigment paste. Then, the
    paste 10, styrene 30, Me methacrylate 20, Bu acrylate 10, ethylene glycol
    dimethacrylate 40, and 2,2'-azobis(2-methylpropionitrile) 1 g were
     suspended in H2O and heated at 80.degree. to give 11%-solids suspension of
     carbon black-covered resin particles, 30 parts (solids) of which was
    blended with 351.5 parts paste contg. carbon black 3, ACR 420 (50% acrylic
     resin varnish) 135.8, and solvents 212.7 parts and 48.5 parts MF 004 (60%
    melamine resin varnish) to give a matte top compn. A
     Zn3(PO4)2-treated steel plate precoated with a cationic electrophoretic
     layer and a midlayer was sprayed with the compn. thinned with
     Solvesso 100-xylene-Solvesso 150 mixt., set 7 min at room temp., and baked
     30 min at 140.degree. to give a coating with 60.degree. gloss .ltoreq.10%
     and good weatherability.
ST
    matte coating pigment weatherability; thermosetting resin coating matte;
     thermoplastic resin coating matte
IT
     Carbon black, uses
     RL: USES (Uses)
        (pigments, resin particles covered by, for weather-resistant matte
        coatings)
IT
     Coating materials
        (matte, weather-resistant, thermosetting- or thermoplastic resin-based,
        contg. pigment-covered resin particles)
     9002-88-4D, Polyethylene, chlorinated
ΙT
                                           86753-49-3, Superchlone 510
     138483-02-0 138483-03-1
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, contg. pigment-covered resin particles, matte, with good
        weatherability)
IT
     147-14-8, Phthalocyanine blue
                                    51274-00-1, Mapico Yellow LL-XLO
     138185-73-6, Paliogen Red 3910
     RL: USES (Uses)
        (pigments, resin particles covered by, for weather-resistant matte
        coatings)
IT
     136326-83-5P 138105-23-4P 138471-24-6P
     138471-26-8P
     RL: PREP (Preparation)
        (prepn. of, dispersants, in manuf. of pigment-covered resin
```

particles, for matte coatings) IT 27136-15-8P, Butyl acrylate-methyl methacrylate-styrene copolymer 59809-02-8P, Butyl acrylate-ethylene glycol dimethacrylate-methyl methacrylate-styrene copolymer 66599-53-9P RL: PREP (Preparation) (prepn. of, particles, pigment-covered, for weather-resistant matte coatings) ΙT 136326-83-5P 138105-23-4P 138471-24-6P 138471-26-8P RL: PREP (Preparation) (prepn. of, dispersants, in manuf. of pigment-covered resin particles, for matte coatings) RN136326-83-5 HCAPLUS CN2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, 2-ethylhexyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate, compd. with N,N-dipropyl-1-propanamine (9CI) (CA INDEX NAME) CM1 CRN 102-69-2 CMF C9 H21 N n-Pr n-Pr-N-Pr-nCM 2 52757-51-4 CMF (C12 H22 O2 . C8 H8 . C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x CCI PMS CM 3 CRN 868-77-9 CMF C6 H10 O3 H<sub>2</sub>C 0 Me-C-C-O-CH2-CH2-OH CM 4 CRN 688-84-6 CMF C12 H22 O2

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 6

CRN 80-62-6 CMF C5 H8 O2

CM 7

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

RN 138105-23-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl 2-propenoate, dihydro-3-methylene-2,5-furandione, 2-ethylhexyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate, compd. with 2-(dimethylamino)ethanol and 1-octadecanamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-30-1 CMF C18 H39 N

 $H_2N-(CH_2)_{17}-Me$ 

CM 2

CRN 108-01-0 CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 3

CRN 136326-81-3

CMF (C12 H22 O2 . C8 H8 . C7 H12 O2 . C5 H8 O2 . C5 H4 O3) x

CCI PMS

CM 4

CRN 2170-03-8

CMF C5 H4 O3

CM 5

CRN 688-84-6 CMF C12 H22 O2

 $\begin{array}{c|c} \text{O} & \text{CH}_2 \\ || & || \\ \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \\ | & \end{array}$ 

Et-CH-Bu-n

CM 6

CRN 141-32-2 CMF C7 H12 O2

 $\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-} \end{array} \text{CH}_2$ 

CM 7

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 8

CRN 80-62-6 CMF C5 H8 O2

 $\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$ 

RN 138471-24-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with butyl 2-propenoate, dihydro-3-methylene-2,5-furandione, methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate, compd. with N,N-diethylpropanediamine, 2-(dimethylamino)ethanol and 1-octadecanamine (9CI) (CA INDEX NAME)

CM 1

CRN 30351-09-8 CMF C7 H18 N2 CCI IDS

 $_{\mathrm{H_3C-CH_2-CH_3}}$ 

D1 | Et-N-Et

D1-NH<sub>2</sub>

CM 2

CRN 124-30-1 CMF C18 H39 N

 $H_2N-(CH_2)_{17}-Me$ 

CM 3

CRN 108-01-0 CMF C4 H11 N O

 ${\tt Me2N-CH2-CH2-OH}$ 

CM 4

CRN 136326-84-6

CMF (C16 H30 O2 . C8 H14 O2 . C7 H12 O2 . C5 H8 O2 . C5 H4 O3)  $\times$ 

CCI PMS

CM 5

CRN 2170-03-8 CMF C5 H4 O3

CM 6

CRN 142-90-5 CMF C16 H30 O2

$$$^{\rm O}_{\rm H_2}$$$
 Me- (CH2)  $_{\rm 11}$  - O- C- C- Me

CM 7

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH} \end{array} \text{CH}_2$$

CM 8

CRN 97-86-9 CMF C8 H14 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{i-BuO-C-C-Me} \end{array}$$

CM 9

CRN 80-62-6 CMF C5 H8 O2

RN 138471-26-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with ethenylbenzene, 2,5-furandione, 2-methylpropyl 2-propenoate and 2-propenoic acid, compd. with N,N-diethylethanamine, N,N-diethylpropanediamine and 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 30351-09-8 CMF C7 H18 N2 CCI IDS

 $_{\rm H_3C^-CH_2^-CH_3}$ 

D1-NH2

CM 2

CRN 121-44-8 CMF C6 H15 N

CM 3

CRN 108-01-0

CMF C4 H11 N O

 $Me_2N-CH_2-CH_2-OH$ 

CM 4

CRN 138471-25-7

CMF (C12 H22 O2 . C8 H8 . C7 H12 O2 . C4 H2 O3 . C3 H4 O2) x

CCI PMS

CM 5

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2\text{--O-C-C-Me} \\ \mid \\ \text{Et-CH-Bu-n} \end{array}$$

CM 6

CRN 108-31-6 CMF C4 H2 O3

CM 7

CRN 106-63-8 CMF C7 H12 O2

CM 8

CRN 100-42-5 CMF C8 H8  $H_2C = CH - Ph$ 

CM 9

CRN 79-10-7 CMF C3 H4 O2

$$0 \\ | | \\ HO-C-CH = CH_2$$

27136-15-8P, Butyl acrylate-methyl methacrylate-styrene copolymer 59809-02-8P, Butyl acrylate-ethylene glycol dimethacrylate-methyl

methacrylate-styrene copolymer 66599-53-9P

RL: PREP (Preparation)

(preparation)

(prepn. of, particles, pigment-covered, for weather-resistant matte coatings)

RN 27136-15-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-} \end{array}$$

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 3

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{\rm H2C} & {\rm O} \\ \parallel & \parallel \\ {\rm Me-} & {\rm C-} & {\rm C-} \\ {\rm OMe} \end{array}$$

RN 59809-02-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with butyl 2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

$$\overset{\text{O}}{\underset{n-\text{BuO-C-CH}}{\parallel}}\text{ch}_2$$

CM 2

CRN 100-42-5 CMF C8 H8

$${\tt H_2C} {=\!\!\!\!=} {\tt CH-Ph}$$

CM 3

CRN 97-90-5 CMF C10 H14 O4

CM 4

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} \text{H}_2\text{C} & \text{O} \\ \parallel & \parallel \\ \text{Me-C-C-OMe} \end{array}$$

RN 66599-53-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1321-74-0

CMF C10 H10 CCI IDS



CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 80-62-6 CMF C5 H8 O2

L46 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:42272 HCAPLUS

DN 116:42272

TI Preparation of **aqueous dispersions** of hydroxylated copolymers bearing imide groups

IN Blum, Harald; Schneider, Volker; Hoehlein, Peter

PA Bayer A.-G., Germany

SO Ger. Offen., 15 pp. CODEN: GWXXBX

Patent

```
LA
    German
IC
     ICM C08F008-32
         C08F220-10; C08F222-40; C08F222-38; C08F222-02; C08F220-04;
         C08L033-00; C08L035-00; C09J133-00; C09D133-00; C09D135-00;
          C09K003-10
ICA C08F212-08; C08J003-24; C08J003-03; C09D011-10
ICI C08L061-00, C08L075-00; C09J133-00, C09J135-00
     35-8 (Chemistry of Synthetic High Polymers)
     Section cross-reference(s): 42
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
                    A1 19911010
    DE 4010794
                                         DE 1990-4010794 19900404
PΤ
                                         CA 1991-2037373 19910228
    CA 2037373
                     AA 19911005
     EP 452696
                     A2 19911023
                                         EP 1991-104487 19910322
    EP 452696
                     A3
                          19920916
    EP 452696 B1 19950118
        R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE
     ES 2069762 T3 19950516
US 5134188 A 19920728
                                         ES 1991-104487
                                                           19910322
                                          US 1991-675388
                                                           19910326
     JP 05339314
                     A2
                           19931221
                                          JP 1991-91560
                                                           19910329
PRAI DE 1990-4010794
                           19900404
     The title dispersions, useful in coatings, sealants, and
     adhesives, contain polymers contg. N-(hydroxyhydrocarbyl)maleimides 1-70,
     unsatd. mono- or dicarboxylic acids 2-25, vinyl monomers 1-75,
     (cyclo)alkyl (meth)acrylates 15-95, and polyunsatd. compds. 0-15
     parts. Perester-initiated polymn. of maleic anhydride 200, MMA 380, Bu
     acrylate 600, acrylic acid 140, 2-ethylhexyl
     acrylate 400, and styrene 200 g in 1966 g 50:50 solvent
     naphtha-BuOAc at 125.degree., heating 3600 g this soln. with 151.2 g
     1-amino-2-propanol in 585 g solvent naphtha at 140-148.degree.,
     dispersing this soln. in H2O contg. 60.3 g Me2NCH2CH2OH,
     and distg. solvents gave a 36% dispersion of a polymer with acid
     no. 56, degree of neutralization 39%, and (hydroxypropyl)maleimide content
ST
    maleic anhydride copolymer imide; maleimide deriv copolymer;
     methacrylate copolymer aq; acrylate copolymer aq;
     acrylic acid copolymer aq; coating water thinned polymer;
     aminopropanol adduct anhydride copolymer
IT
     Polyesters, compounds
     RL: USES (Uses)
        (polymers, ethers with (hydroxyalkyl)imide group-contg. acrylic
        , water-thinned, manuf. of)
IT
    Adhesives
     Coating materials
     Sealing compositions
        (water-thinned, (hydroxyalkyl)imide group-contg. acrylic
        polymers, manuf. of)
IT
     60-32-2DP, 6-Aminohexanoic acid, reaction products with maleic anhydride
     copolymers and aminopropanol 78-96-6DP, 1-Amino-2-propanol, reaction
     products with maleic anhydride copolymer 141-43-5DP, 2-Aminoethanol,
     reaction products with maleic anhydride copolymer 541-59-3DP, Maleimide,
     hydroxyalkyl derivs., polymers 24980-41-4DP, Polycaprolactone,
     ethers with (hydroxyalkyl)imide group-contg. acrylic polymers
     25248-42-4DP, Polycaprolactone, SRU, ethers with
     (hydroxyalkyl)imide group-contg. acrylic polymers
     40411-34-5DP, reaction products with aminopropanol and
```

aminohexanoic acid 133736-14-8DP, reaction products with aminopropanol and aminohexanoic acid 138321-65-0DP, (hydroxyalkyl)imide derivs.

RL: PREP (Preparation)

(aq. dispersions, manuf. of)

IT 138321-66-1D, reaction products with aminohexanoic acid and aminopropanol

RL: USES (Uses)

(coatings, water-thinned, solvent-resistant)

IT 24980-41-4DP, Polycaprolactone, ethers with (hydroxyalkyl)imide group-contg. acrylic polymers 25248-42-4DP, Polycaprolactone, SRU, ethers with (hydroxyalkyl)imide group-contg. acrylic polymers 40411-34-5DP, reaction products with aminopropanol and aminohexanoic acid 133736-14-8DP, reaction products with aminopropanol and aminohexanoic acid 138321-65-0DP, (hydroxyalkyl)imide derivs.

RL: PREP (Preparation)

(aq. dispersions, manuf. of)

RN 24980-41-4 HCAPLUS

CN 2-Oxepanone, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 502-44-3 CMF C6 H10 O2

RN 25248-42-4 HCAPLUS

CN Poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

RN 40411-34-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 108-31-6 CMF C4 H2 O3

CM 2

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{CH}_2 \text{--} \text{O} \text{--} \text{C} \text{--} \text{CH} \text{==} \text{CH}_2 \\ || \\ \text{Et--} \text{CH--} \text{Bu-n} \end{array}$$

CM 3

CRN 100-42-5 CMF C8 H8

$$_{\rm H2C} = _{\rm CH-Ph}$$

CM 4

CRN 80-62-6 CMF C5 H8 O2

RN 133736-14-8 HCAPLUS

2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2,5-furandione and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 688-84-6 CMF C12 H22 O2

$$\begin{array}{c|c} \text{O} & \text{CH}_2 \\ \parallel & \parallel \\ \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \\ \parallel \\ \text{Et} - \text{CH} - \text{Bu-n} \end{array}$$

CM 2

FORTUNA 10/019161 Page 110

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{n-BuO-C-CH-----} \text{CH}_2 \end{array}$$

CM 3

CRN 108-31-6 CMF C4 H2 O3

CM

CRN 100-42-5 CMF C8 H8

$$_{\mathrm{H_2C}} = _{\mathrm{CH-Ph}}$$

CM

CRN 80-62-6 CMF C5 H8 O2

138321-65-0 HCAPLUS RN

2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, 2,5-furandione CNand 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

$$\begin{array}{c|c}
O & ||\\
 & ||\\
 & n-BuO-C-CH \longrightarrow CH_2
\end{array}$$

CM 3

CRN 103-11-7 CMF C11 H20 O2

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-10-7 CMF C3 H4 O2

$$0$$
||
HO-C-CH==CH<sub>2</sub>

138321-66-1D, reaction products with aminohexanoic acid and

aminopropanol
RL: USES (Uses)

(coatings, water-thinned, solvent-resistant)

RN 138321-66-1 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2 CMF C7 H12 O2

CM 2

CRN 108-31-6 CMF C4 H2 O3

CM 3

CRN 103-11-7 CMF C11 H20 O2

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{CH}_2-\text{O}-\text{C}-\text{CH} \Longrightarrow \text{CH}_2 \\ \parallel \\ \text{Et}-\text{CH}-\text{Bu-n} \end{array}$$

CM 4

CRN 100-42-5 CMF C8 H8  $H_2C = CH - Ph$ 

L46 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2003 ACS

AN 1984:104554 HCAPLUS

DN 100:104554

TI Thermoplastic polymeric material

IN Kasahara, Hideo; Tazaki, Kichiya; Fukuda, Kunio; Suzuki, Hiroshi

PA Asahi-Dow Ltd., Japan

SO U.S., 17 pp. Cont.-in-part of U.S. Ser. No. 190,737, abandoned. CODEN: USXXAM

DT Patent

LA English

IC C08G081-02

NCL 524514000

CC 37-6 (Plastics Manufacture and Processing)

FAN. CNT 2

PAN.		TENT NO.	KIND	DATE	APPLICATION NO. DATE
ΡI	US	4421892	A	19831220	US 1982-375685 19820506
	JР	56050931	<b>A</b> 2	19810508	JP 1979-127298 19791004
	JΡ	61056249	B4	19861201	
	JP	56053134	A2	19810512	JP 1979-129467 19791009
	JΡ	61060097	B4	19861219	
	JΡ	56070055	A2	19810611	JP 1979-146506 19791114
	JP	60059257	B4	19851224	
	JΡ	56110761	A2	19810902	JP 1980-13560 19800208
	JΡ	60047304	B4	19851021	
PRAI	JΡ	1979-127298		19791004	
	JΡ	1979-129467		19791009	
	JΡ	1979-146506		19791114	
	JΡ	1980-13560		19800208	
	US	1980-190737		19800925	
	US	1982-355384		19820308	

AB Polymer compns. with high mech. strength, having a fine dispersion microstructure, comprises the reaction product of a maleic anhydride copolymer (10-65%) and 35-90% polyamide. Thus, 50 parts polycaprolactam and 50 parts maleic anhydride-Me methacrylate-styrene copolymer were coextruded at 160.degree. at shear rate 400 s-1 to give a copolymer [77875-10-6] having a fine structure as obsd. by electron microscopy. A phys. mixt. of the 2 polymers had a coarse structure. A solvent fractionation test confirmed that the hot extruded product resulted from reaction of the 2 polymers.

ST polycaprolactam maleic anhydride copolymer; polyamide maleic anhydride copolymer

IT Carbon fibers

Glass fibers, uses and miscellaneous

RL: USES (Uses)

(polyamide-maleic anhydride copolymers reinforced by)

IT Polyamides, preparation

RL: PREP (Preparation)

(polymers with maleic anhydride copolymers, with fine structure)

IT 9003-54-7P

RL: PREP (Preparation)

(glass fiber-reinforced, contg. maleic anhydride-Me methacrylate-caprolactam-styrene copolymer, manuf. of, with fine structure)

```
36563-19-6P 42033-11-4P 77874-99-8P
IT
     77875-10-6P
     RL: PREP (Preparation)
        (manuf. of, with fine structure)
IT
     9003-54-7P
     RL: PREP (Preparation)
        (glass fiber-reinforced, contg. maleic anhydride-Me
        methacrylate-caprolactam-styrene copolymer, manuf. of, with fine
        structure)
     9003-54-7 HCAPLUS
RN
     2-Propenenitrile, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
CN
     CM
          1
     CRN 107-13-1
     CMF C3 H3 N
H_2C = CH - C = N
     CM
     CRN 100-42-5
     CMF C8 H8
H_2C = CH - Ph
IT
     36563-19-6P 42033-11-4P 77874-99-8P
     77875-10-6P
     RL: PREP (Preparation)
        (manuf. of, with fine structure)
     36563-19-6 HCAPLUS
RN
CN
     2,5-Furandione, polymer with ethenylbenzene and hexahydro-2H-azepin-2-one
     (9CI)
           (CA INDEX NAME)
     CM
          1
     CRN 108-31-6
     CMF C4 H2 O3
     CM
          2
```

CRN

105-60-2 CMF C6 H11 N O

CM 3

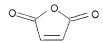
CRN 100-42-5 CMF C8 H8

RN 42033-11-4 HCAPLUS

CN 2-Propenenitrile, polymer with ethenylbenzene, 2,5-furandione and hexahydro-2H-azepin-2-one (9CI) (CA INDEX NAME)

CM 1

CRN 108-31-6 CMF C4 H2 O3



CM 2

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$ 

CM 3

CRN 105-60-2 CMF C6 H11 N O

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CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 77874-99-8 HCAPLUS

CN Hexanedioic acid, polymer with ethenylbenzene, 2,5-furandione and 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4 CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CM 2

CRN 124-04-9 CMF C6 H10 O4

 $HO_2C-(CH_2)_4-CO_2H$ 

CM 3

CRN 108-31-6 CMF C4 H2 O3

0 0 0

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

RN 77875-10-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2,5-furandione and hexahydro-2H-azepin-2-one (9CI) (CA INDEX NAME)

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CM 1

CRN 108-31-6 CMF C4 H2 O3

CM 2

CRN 105-60-2 CMF C6 H11 N O

CM 3

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 4

CRN 80-62-6 CMF C5 H8 O2

=> SAVE TEMP FOR019/A L46
ANSWER SET L46 HAS BEEN SAVED AS 'FOR019/A'

=> D HIS FUL

(FILE 'HOME' ENTERED AT 09:16:35 ON 10 JUL 2003)

FILE 'HCAPLUS' ENTERED AT 09:17:07 ON 10 JUL 2003 E FR99-7910/PRN,AP

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290